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1946 SEED CATALOG
ISSUE

Eastern States Farmers' Exchange
West Springfield
Mass

EASTERN STATES

Cooperator

JANUARY, 1946



Listen!

ON OUR PARTY LINE

December 15 ended the period during which members could order Eastern States fertilizer against the tonnage quotas which had been established on a historical usage basis for field territories and also for representative and warehouse areas. Some members will be disappointed in not getting the exact grade of fertilizer they ordered and the reason is simple. Orders have run heavily to grades high in potash. Eastern States, along with all manufacturers, is using potash which was allotted for the fall and winter mixing seasons. Members have ordered fertilizer containing higher amounts of potash than Eastern States' allotments will permit delivery of. Therefore, some substitutions in grades will have to be made.

Prospects appear good for an adequate supply of corn to be used in Eastern States' feeds for the present, but there is still a lot of corn that has not been husked. This is high in moisture and there is a lot of soft corn that will have to be fed where it is raised. However, protein carriers are definitely short and present indications are that they will continue so for another year. The supply is large, but usage is much heavier than prewar in areas where protein carriers are produced, owing to the large number of units of livestock.

Ten-quart Eastern States Motor Oil cans will be back in the picture soon. We have just been through a short period of NO CANS which may have affected you. Those eight-quart cans were a wartime measure, now being discontinued.

Eastern States has a carefully developed program for training of returned servicemen. The first group of eight men were back in the "little red school house" at West Springfield for a week the middle of December. Prime purpose is to refresh the men's memories generally on Eastern States work and also to bring them up-to-date on the many changes which have taken place in the last four years.

Lack of steel and castings and manpower problems are the reasons given for a 10 percent decrease in farm machinery production in the third quarter of 1945 as compared with the corresponding 1944 period.

National farm organizations have petitioned for a special federal fund of half a million dollars to be administered by USDA for research and investigation to improve the volume of legume seed production. For at least five years per-acre production of clover and other legume seed has been falling off. Supplies are now so low as to be a nationally serious problem.

A revised version of the Flannagan Bill (HR 3422) to consolidate all federal farm credit agencies into an independent agricultural credit agency has been drafted by the House Agriculture Committee. The new bill still calls for removal of FSA and FCA from USDA, which Secretary of Agriculture Anderson opposes.

EASTERN STATES FARMERS' EXCHANGE



VOLUME 22

NUMBER 1

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Address: EASTERN STATES COOPERATOR
West Springfield, Massachusetts

The Cover . . .

THE EASTERN STATES color camera caught Miss Patricia Wills of Buffalo Mills, Bedford county, Pennsylvania, just after she harvested some of dad's sweet corn. The lovely lady and that corn beaming with appetite appeal make a perfect combination for the COOPERATOR's 1946 debut.

Patricia is a freshman at the State Teacher's College, Indiana, Pennsylvania. Her market gardening father is Randolph Wills, long-time enthusiastic Eastern States member and local representative.

E. W. Kestner took the picture.

USEFUL INFORMATION IS A VALUABLE COOPERATIVE SERVICE

Reminders . . .

SPRAY MATERIALS: You will find an *Eastern States Spray* or *Dust Material* to dependably protect any crop you grow. Be wise and buy CROP PROTECTION. . . ☐

BREEDERS: Both poultry and turkey breeders will find an early start with *Eastern States Breeder Concentrate Pellets* a great help in consistently maintaining high hatchability. ☐

CALF TABLETS: Thousands of dairymen saw for themselves in 1945 how *Eastern States Calf Tablets* contribute to strong, healthy, fast-growing calves. ☐

ROOFING: Have you placed an order for your 1946 supply of *Eastern States Roofing Materials*? An early order is advisable. ☐

Suggestion . . .

EVIDENCE is accumulating to prove that the nutritional value of our home garden vegetables can be as good or poor as the fertility of soil on which they grew. No spot of ground is more important than your family garden plot. It can contribute to or detract from family health. And the day may not be far away when commercial vegetable growers will compete heavily on a basis of whose vegetables are the best source of vitamins and minerals, with laboratory tests to back up claims.



How to Obtain Eastern States Vegetable Seed

☆ **Ordering:** Please submit your order on the vegetable seed order form which is included as a part of this COOPERATOR — additional copies may be obtained from an Eastern States local representative, warehouse, or the West Springfield, Mass., office.

Orders may be submitted through a local representative, or warehouse, or direct to the West Springfield, Mass., office.

Shipment will be made on notice of inability to ship will be sent promptly. Early orders help to assure the varieties desired and delivery well in advance of planting time.

Delivery: Shipment will be made by parcel post or express at our option. Exceptions to this may be made by us; and some orders such as for warehouse stocks may be shipped in Eastern States feed cars. Shipment will be made as promptly after receipt of order as supplies and facilities permit.

Local Warehouse Service: Supplies of seed will be maintained at Eastern States regional warehouses and at warehouses of some local representatives. Better service can be rendered at less expense when members anticipate their needs and place orders well in advance of desired planting date.

Charges: Prices are subject to change without notice. Prices in effect at the West Springfield office on the postmarked date of your order will apply.

Prices include seed treatment, bags and transportation within Eastern States territory when method of shipment is at our option.

This year warehouse prices are the same as catalog prices.

Payment: Cash with the order or C.O.D.

Package Units: Seed is packaged in standard size units as listed only. Unless otherwise authorized we will ship each item in the largest standard size units available and invoice at the rate for its total weight. One variety may be ordered in smaller units to make a larger unit. The charge is an additional two cents per package when the amount is less than a pound and one cent a pound when over a pound. For example: 4 one-ounce packets of carrots may be obtained at the same price as a four-ounce packet plus two cents a packet, or eight cents for these smaller packets. Twenty-five pounds of beans may be obtained in five-pound packages for an additional 25 cents. Orders which specify certain size packages will be invoiced at the rate for those sizes. Varieties cannot be combined to obtain lower prices of larger units.

Warranty Clause

We know by test these seeds are of desirable inheritance and of high vitality and will produce favorably under normal conditions. Care and

environment do so affect type and production that we give no warranty, express or implied, as to the crop produced and shall in no instance be liable for more than the amount actually paid for the seed.

Eight New Stars for 1946

★ Lee Sweet Corn (Yellow Hybrid)

- a — Good quality, 8½" ear, wilt-resistant, stalk 6½ to 7'
- b — Matures 3 to 5 days before Golden Cross Bantam
- c — Our trials show average weight of ears to be 8.84 ounces; whereas those of Lincoln weighed 7.85 ounces. Lee is two days earlier than Lincoln, fitting better into our program by not competing with Golden Cross, which is highest in quality.

★ Ioana (Yellow Hybrid)

- a — High quality, 8" ear, wilt-resistant, 7' stalk
- b — Drought-tolerant, late
- c — Matures 4 to 5 days after Golden Cross Bantam
- d — Recommended especially for Pennsylvania and southern territory

★ Oak Leaf Lettuce

- a — An early, high quality variety for the farm garden
- b — Attractive, crisp, partly bleached leaves
- c — Grows well in partial shade or open ground during summer months without getting bitter

★ Long Tendergreen — bush-snap bean

- a — An improved Tendergreen
- b — Longer than Tendergreen — pods 7" in length
- c — Round, dark green and stringless
- d — Plants large, compact and heavy producers

★ Fordhook (242) — bush lima

- a — An improved Fordhook bush lima
- b — Has the ability to develop pods under adverse conditions
- c — Generally outyields regular Fordhook by a 3-2 margin
- d — First picking is greater than with regular Fordhook
- e — Pods contain 3-4 greenish-white plump beans
- f — Matures a week earlier to three days later than regular Fordhook — depending on locality

★ Alberger Rutabaga

- a — Globular in shape, yellow with purplish top
- b — Early, high quality
- c — We've tried to get this into production for four years. The fourth time did not fail.
- d — The main crop yellow variety

★ Eastern States Early One Broccoli

- a — Introduced in June, 1945, after 9 years of intensive development
- b — Early, large, very productive
- c — 7-10 days earlier than Calabrese
- d — Sure heading — attractive — a moneymaker
- e — Practically all plants are ready for cutting at one time

★ Eastern States Butternut Squash

- a — 10-12" long, 4-5" thick — solid neck — small bulb
- b — Skin tan-colored, smooth
- c — Flesh fine textured, sweet, excellent for pies
- d — A heavy yielding market type



Good Gardens Begin With GOOD SEED . . .

GOOD SEED is the first fundamental of successful gardening. The most careful grower cannot succeed with poor seed even though he gives close attention to all the other factors of production. The ability of seed to produce a satisfactory and desirable crop cannot be determined by the appearance of the seed. It is for this reason that the *selective cooperative* service of Eastern States is of real assistance to vegetable growers whether they operate in their back yards or on a market gardening basis. *Eastern States*

seed is seed of known performance. The parentage and past performance of a seed stock are the indexes Eastern States relies on in appraising future crop producing power.

☆ **Selection:** To make this program effective, the Eastern States Plant Industry Project, through extensive trials at Feeding Hills, Massachusetts, and at other points in vegetable areas, tests seed stocks for distribution.

Every lot of vegetable seed distributed by Eastern States is included in these trials. Adaptation, trueness

to type, productivity, and resistance to or freedom from disease are carefully studied. Varieties or strains must prove their worth before they are made available to Eastern States members.

☆ **Breeding:** In conjunction with the trial work, plant breeding work is also constantly in progress for the improvement of present varieties and the creation of new and better ones. The purpose of all this careful work is to determine and make available

the best "consumer values" in seed. This *value* is measured in terms of *dependable performance* in the field, in the markets, and on the consumer's table.

☆ **Production:** The seed for distribution is procured by multiplying our own foundation stock seed and by purchases from sources of proven merit. The area of production is selected for its ability to produce economically high quality seed, as free as possible from disease.

☆ **Seed Treatment:** Certain diseases are carried on or in the seed and can be controlled by specific treatments. Seed for which an effective treatment has been demonstrated is so treated at the seed warehouse before shipment, where the chemicals can be properly and economically applied.

Seed so treated should not be soaked before planting, as germination may be materially injured.

☆ **Description:** Every lot of seed distributed will show a report of the germination, the date of test and a lot number. The lot number is a code reference to our records of the history, performance and production of that particular lot. Correspondence pertaining to the performance of *Eastern States seed* should include the specific lot number of the seed under consideration to aid investigation.

Save the package or the tag on your Eastern States vegetable seed. Refer to the lot number when you write for further information.

For the sake of uniformity in describing the comparative earliness, size, and other characteristics of varieties, several years' records from the Eastern States testing grounds at Feeding Hills, Massachusetts, have been used.

"Days to grow" indicates the relative earliness of varieties from seed to crop, and for kinds ordinarily transplanted, from field setting to market crop.

The number of days required by any particular variety to produce a crop will vary from place to place and from year to year, depending upon soil and seasonal conditions. Also characters of growth will vary. For instance, a particular variety of corn will normally grow a taller stalk the

farther north it is grown and a shorter stalk the farther south it is grown.

The careful handling of certain vegetable seeds in every handling operation is exceedingly important to assure successful stands in the field. The Eastern States Farmers' Exchange has exercised every possible precaution in the harvesting, cleaning and shipping of such seed, fully realizing the extreme danger to germination from rough handling.

This precaution applies particularly to the larger seeds such as peas

and beans which have paired cotyledons with dry, brittle embryos. Dropping a bag or walking on one may reduce germination of its contents as much as 10 percent or more by cracking the seed internally, yet you may see little or no evidence of physical damage.

Likewise, the seed of beets and chard will crumble very readily. This injury breaks up the seed clusters and increases the loose hull accumulation which interferes with uniform seeding.

Eastern States Varieties and Cultural Suggestions

★ Varieties with an asterisk * are the best quality for freezing.

ASPARAGUS

***Asparagus** — Mary Washington (seed and roots are available). The outstanding variety for commercial and home garden plantings. Spears are large, thick and green with a purplish tinge. Rust-resistant. Tip scales remain tightly closed so that spears are tall and green before feathering. Excellent quality in all stages of development.

BEANS

BUSH GREEN SNAP

Stringless Valentine — Stringless, round, dark green, fine quality quick maturing. Pods nearly straight — $6\frac{1}{2}$ " in length. Holds color and texture well for distant shipping. Plant is large, erect and prolific.

Bountiful — Stringless, flat, light green, slightly curved, pods mature a day later than Stringless Valentine. Slightly fibrous but brittle and remains edible until fully grown. Plant is large, erect and prolific; a heavy producer. Seed yellow straw color.

Stringless Green Pod — The plants are erect, vigorous and mature with considerable uniformity. The pods are dark green, round in cross section, practically straight and smooth. The flesh is brittle, absolutely stringless and without fiber or parchment. Seed solid yellowish-brown.

Stringless Tendergreen — The plant is large, erect and compact, producing heavily over a short season. The pods are dark green, nearly round, slightly curved, and smooth. The flesh is brittle, stringless and without fiber. Seed brown, blotched with light fawn.

***Long Tendergreen** — A new improved Tendergreen — pods 7", round, dark green, tender and stringless. An excellent market and home garden variety. Plants are vigorous, prolific and bear over a long period — matures in 52 days. Seed brown, blotched with light fawn.

Plentiful — Dark green, flat pods about 7" long. Stringless, firm, very attractive and productive; matures in 50 to 52 days. Seed black.

BUSH WAX SNAP

Pencil Pod Wax — One of the most dependable round-podded varieties. Golden yellow pods $6\frac{1}{2}$ ", curved, stringless but fleshy. Large and productive plant — 50 days from seeding to harvest. Black seed.

***Brittle Wax** — Used extensively for canning as seed is light colored and develops slowly. Pods 6", slightly curved, brittle and succulent. Plant large, erect and moderately productive for 2 to 4 weeks. White seed with very dark brown to black broken-ring eye marking — 50 days from seeding to harvest.

***Sure Crop Wax** — Known also as Yellow Bountiful, very productive, pods 6" dull yellow fleshy but flat, brittle, stringless with very little fibre. Black seed — 53 days from seed to harvest.

Bean Culture — Bush Wax and Green Snap — French's Horticultural

Plant after danger of frost in a fertile, well-drained, mellow soil, 1" deep, 4" apart in 2½ to 3' rows, using ½ lb. of seed to 100' of row (60 to 80 lbs. per acre). For continuous harvest, plant every 2 or 3 weeks to July 1 or later, depending on locality, allowing sufficient time for maturity before frost.

Seed must not be placed in contact with fertilizer. Burning will result.

BUSH SHELL OR FIELD

French's Horticultural — Originated by Eastern States from a single plant selection. Pods 7 to 8", heavily splashed with deep carmine. Seeds large and plump. Plant very prolific, erect with short runners.

Maine Yellow Eye — A high quality baking bean, popular in New England. The plant is of the short runner type. The beans are medium size, solid white with brownish-ochre markings around the eye, covering about ¼ of the bean. Matures uniformly, dropping its leaves at maturity, making them easy to cure in small loose ricks.

Geneva Red Kidney — A productive variety, seed of which is produced in an area free of seed-borne diseases. The dry beans are used for baking and are of excellent quality, dry and mealy. Seed reddish-brown in color and kidney-shaped.

Bean Culture — Bush Shell or Field

Plant after danger of frost in a fertile, well-drained, mellow soil, 1" deep, 4" apart in 2 to 3' rows, using ½ lb. of seed per 100' row (60 to 90 lbs. per acre).

Seed must not be placed in contact with fertilizer. Burning will result.

BUSH LIMA

***Fordhook** — The plant is large, upright, vigorous and very productive. Pods contain 3 to 4 large, plump seeds of the potato lima type. Dry beans are white with a tinge of green.

***Fordhook 242** — Bred to set pods under adverse conditions. Average yield under adverse conditions at Feeding Hills in 1945 was 18.4 pods per plant. Regular Fordhook averaged 10.4 pods per plant. Very similar in length, appearance, size, etc., to regular Fordhook. High in quality. Plant is large, upright and vigorous.

Bean Culture — Bush Lima

Plant after danger of frost in a warm, fertile, well-drained, mellow soil, 1" deep, 4" apart in 3 to 3½' rows, using 1 lb. of seed per 100' row (95 to 110 lbs. per acre).

Encourage quick germination and rapid seedling emergence by shallow planting in a warm, well-drained soil to overcome rhizoctonia and other soil-borne organisms frequently responsible for a poor stand.

Seed must not be placed in contact with fertilizer. Burning will result.

POLE LIMA

King of Garden — The plant is tall, a good climber, vigorous and highly productive over a long period. Pods contain 4 to 5 beans. Seeds are large, flat, white, fleshy and of excellent quality.

POLE SNAP

***Kentucky Wonder** — The outstanding variety for canning and freezing. Has a distinctive beany flavor of high quality. Pods 9", irregularly curved with constrictions between the seed. Seed buff-brown with indistinct vein of darker brown. Has to be eaten to be really appreciated.

Bean Culture — Pole Lima and Pole Snap

Plant after danger of frost in a warm, fertile, well-drained, mellow soil, dropping 3 to 5 seeds 1½" deep per hill, 4 x 4' apart. Use 8 to 9' poles set 2 to 3' in the ground and well-braced. Where seed is dropped 4" apart in 4 to 5' rows, a trellis may be built with well-braced end poles and intermediate supporting poles every 12 to 16' apart. Stretch top, middle and bottom horizontal wires and attach vertical strings such as binder twine every 8 to 12" apart.

Encourage quick germination and rapid seedling emergence by a shallow planting in a warm, well-drained soil to overcome rhizoctonia and other soil-borne organisms which are frequently responsible for a poor stand.

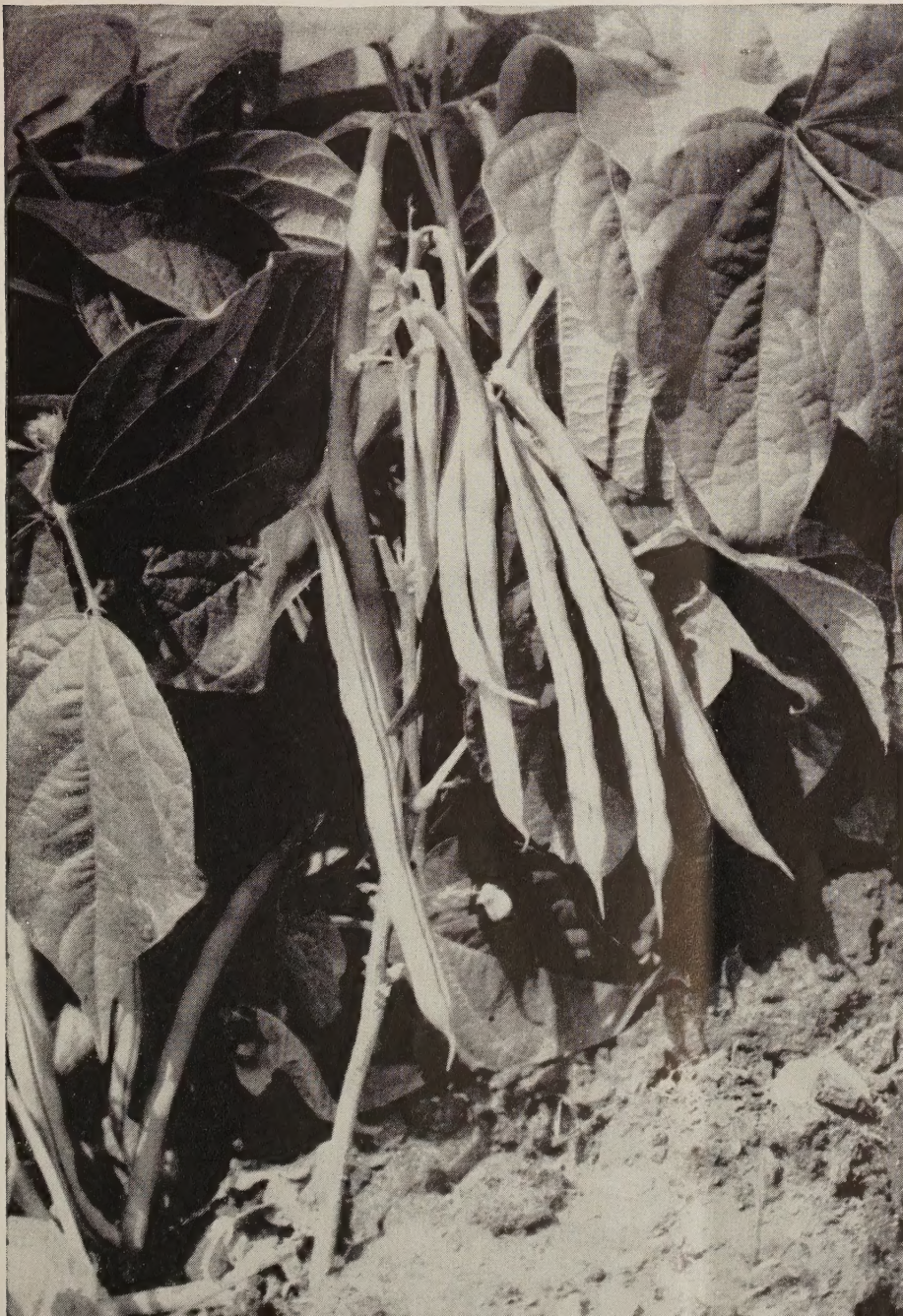
Seed must not be placed in contact with fertilizer. Burning will result.

SOYBEAN

The soybean is one of the most nutritious and healthful of all foods. It is high in protein, fat, several vitamins, and a wide variety of amino acids. It is relatively low in starch and sugar, of which most diets contain too great a proportion. It therefore definitely improves the ordinary diet. It has been a substantial part of the diet in Oriental countries for hundreds of years but has until recently been grown only for animal feeding in America. The flavor and texture is unlike other kinds of beans with which the Occidental palate is familiar; so from among the hundreds of varieties available those most palatable to us must be chosen.

Varieties

Giant Green — A large green-seeded variety of relatively early maturity. When planted June



Here's a bush green snap bean — *Long Tendergreen* — that produces 7-inch pods and matures in 52 days.

1 the beans should be ready to eat green in about 90 days or about September 1, and ready to thresh as dry beans 15 to 18 days later. The plants grow erect 18 to 24" high with large leaves and rather coarse, woody stems. As they near maturity the pods become grayish-yellow and then black at complete maturity, each containing 2 or 3 green beans which shatter out readily. The beans can be used either green or dry but flavor and quality are generally considered better in the green shell stage.

Cultural Suggestions

Plant about June 1 and after soil is well warmed, about 1" deep and 3" apart in 2' rows. Proper inoculation is desirable for soybeans but when impractical to apply on small lots they will make entirely satisfactory growth if nitrogen is supplied in a regular garden fertilizer at the same rate as for other garden crops.

BEETS

TABLE

Crosby Early Wonder — An early market variety. Roots are semi-globular with a small tap root. Flesh is blood red with zones of slightly lighter shade. Tops are dark green tinged with red — medium height and erect.

***Perfected Detroit** — A high quality main crop variety for market, canning or storage. Root is globe-shaped with dark red flesh, and the zones of slightly lighter color are indistinct. Tops are dark green tinged with red.

Beet Culture — Table Beets

One ounce of seed plants 100' of row — 10 lbs. per acre. Sow as early as a fertile, well-drained, mellow soil can be prepared, dropping seeds $\frac{1}{2}$ " apart, $\frac{1}{2}$ " deep in 12 to 18" rows. Thin seedlings to stand $1\frac{1}{2}$ to 3" apart and use thinnings as greens. For continuous harvest, plant every 2 to 3 weeks to August 1.

BROCCOLI

Calabrese — This vegetable should be much more widely used in home gardens. The edible heads are very high in vitamins A, C and G. A dozen plants set early in the spring will yield sufficient of this popular delicacy for a family of four until freezing in the fall. After the central green head is removed, a number of smaller heads are produced on stems 4 or 5" long, continuing to produce in this manner throughout the summer if kept cut and adequately fertilized; or seed may be sown in June or plants set in late July for harvest in September and October. Plants grow 3 to 4' in height and become much branched.

Broccoli is prepared for the table similarly to asparagus or cauliflower, cooking only until tender (3 to 5 minutes), thereby retaining the bright green color, full flavor and high food value.*



Eastern States did the breeding and selecting to develop *Early One* broccoli — earlier and very productive.

***Broccoli — Early One** — introduced in June, 1945, by Eastern States after nine years of intensive development. Plants are large, sure heading and very productive. The first cutting is heavy; a higher percentage of heads are ready for cutting at one time. An abundance of side shoots are produced after the first cutting. A week earlier than Calabrese.

Broccoli Culture

For an early crop, sow in sterilized soil under glass (8 to 10 seeds per inch in 2" rows) from February 15 to March 15. Transplant into $2\frac{1}{2}$ " pots or $2\frac{1}{2}$ x $2\frac{1}{2}$ " apart in flats when first true leaves appear. After danger of hard frosts, the plants should be hardened by gradual exposure and set outside 2 by 3' apart in a fertile, well-drained, mellow soil. For a late crop, sow in June outdoors, transplant in 5 to 6 weeks or thin to stand 2 x 3' apart. Side-dressings of nitrogen may be advisable during the season.

CABBAGE

EARLY VARIETIES

Cabbage — Golden Acre — The earliest variety. Heads are small to medium in size, solid, globe-shaped and slightly flattened. Plants have a dwarf compact growth which permits close setting. This variety is suitable for successive plantings to mid-summer.

Yellows Resistant Golden Acre — This strain resembles Golden Acre very closely but is 2 to 3 days later. Recommended especially for soils infected with yellows but may be successfully grown elsewhere.

Marion Market — A yellows resistant variety of the Copenhagen Market type. Heads are oval weighing 5 to 7 lbs. Plants are large. Sow seed or set plants with Golden Acre variety to have a continuous supply of cabbage for a month or more.

Cabbage Culture — Smooth Green: Early and Midseason Varieties

One-quarter ounce of seed plants 100' of row — 4 oz. per acre. For early harvest, sow in flats under glass (8 to 10 seeds per inch in 2" rows) from February 15 to March 15. Transplant once in flats 2 by 2" when first true leaves appear. Avoid crowding, drying out or overwatering. Control temperatures at about 65° F. and provide ample ventilation. Harden off by gradual exposure and withhold watering a week or 10 days before setting in the field. Soak thoroughly just before transplanting. Set outside 14 to 18 by 24" apart as soon as ground can be prepared after danger of hard frosts. When transplanting, the field soil should be slightly richer than the soil in which the seedling plants were grown. For later harvest, sow at 2-week intervals, 5 to 6 weeks before transplanting in the field. Side-dressings of nitrogen may be profitable if growth is slow.

LATE VARIETIES

Yellows Resistant Wisconsin No. 8 —

A strain of Ballhead type selected for resistance to cabbage yellows. It is a leafy, medium stem type, producing globe-shaped heads. A late variety for winter storage. Use standard varieties unless the soil is known to be infected with cabbage yellows.

Short Stem Ballhead — A strain of Danish Ballhead. Heads are round and very solid weighing 6 to 7 lbs. Plants are of medium size with short stems. Excellent for kraut and winter storage.

Penn State Ballhead — A high-yielding variety developed by Dr. C. E. Myers of Penn State College. Heads are flattened, globe-shaped and very solid. Size depends greatly on planting distance and fertility. Excellent for winter storage.

Drumhead Savoy — The plants are medium large, producing deep rounded heads, and





This is *Chihli* Chinese cabbage—delicious for salads and slaws, or cooked like you use chard.

moderately solid. This variety is admired for its crumpled, dark bluish-green leaves and creamy white interior. The flavor and quality are distinctive and it stores well. Try it and be convinced.

Mammoth Rock Red — A purplish-red variety used mainly for pickling and salads. The plants are of medium size with a short stem; the heads are oval and solid. Distinctly a cabbage for special markets.

Cabbage Culture — Late Varieties

Sow in outdoor seedbed, 4 seeds per inch in 12" rows in April or May. One ounce of seed plants 200' of row and should produce in excess of 2000 good plants — enough for one-fourth acre. Transplant 5 or 6 weeks later, 24 x 30 to 36" apart. The field soil should be somewhat more fertile than the seedbed.

CHINESE or CELERY CABBAGE

This vegetable makes a splendid addition to the late fall garden. Its flavor is somewhat like that of cabbage but much milder and more delicate. It can be eaten either raw or cooked in nearly any of the ways practiced for cabbage or lettuce. It is delicious when eaten as slaw or salad. The leaves may be cooked as cabbage or like spinach or the mid-rib alone used and served more like asparagus.

About 25' of row is suggested for a family of four.

Chinese Cabbage — Chihli (Known as Celery Cabbage) — When ready to harvest heads are 18" tall, tapering and very compact with a diameter of 4 to 6" at the base. Inside leaves are white tinted with green, crisp and sweet. Outside leaves are dark green and very attractive.

Chinese Cabbage Culture

Grown chiefly as a fall crop, for if grown in summer, the plant will likely go to seed before

heading. Sow seed in July in 18 to 24" rows. Use $\frac{1}{8}$ oz. per 100' of row or 4 oz. per acre. When plants are not over 2" high thin to about 15". Soil must be fertile. If plants are started in a seedbed, transplant when quite small — about 4 weeks after the seed is sown.

A rich soil that is retentive of moisture and in good physical condition is necessary; side-dressing of nitrogen may be necessary if growth is slow.

CARROTS

Carrots — Chantenay (Red Cored) — Excellent as an early bunching carrot. Roots are $5\frac{1}{2}$ " long and 2 to $2\frac{1}{2}$ " in diameter at the top, tapering to a blunt point. The crown is small and only slightly sunken. Very productive and of good quality with a red core.

Long Chantenay — A smooth-skinned, semi-stumped root averaging as a rule 1 to $1\frac{1}{2}$ " longer than regular Chantenay, developing its color early. The top is smaller, but fully as strong as Red Cored Chantenay. The roots when harvested at bunching stage resemble Emperor in appearance but reach this stage about 10-14 days earlier.

Nantes Long — First choice for the farm and home garden. Practically coreless, very sweet with a fine texture and flavor. Root is 6 to 7" long, cylindrical and 1 to $1\frac{1}{2}$ " in diameter. Stump-rooted. Tops are small and must be handled carefully to avoid breaking.

Emperor (long strain) — Roots are 7- $8\frac{1}{2}$ " long, $1\frac{3}{4}$ -2" at shoulder and uniformly tapered to a semi-blunt end. The flesh is a rich orange color, fine grained, tender and of excellent color and the core is indistinct. The tops are of medium size and strong. Suitable for bunching or storage. Partially resistant to *Cercospora* leaf spot. Definitely coarser, but more sure of a satisfactory crop than Bunching.

Bunching — A carrot well adapted for bunching for long distance shipping. The roots are 8" long and $1\frac{1}{4}$ - $1\frac{1}{2}$ " in diameter, nearly cylindrical with rounded shoulders and stump-rooted. The root is smooth and nearly free from hair roots and side root scars. The tops are short but strong. Well grown on good soils, this variety suits quality markets. Susceptible to *Cercospora* leaf spot.

Danvers (Supreme) — Flesh is bright orange-scarlet and of exceptional quality. Roots 7 to $7\frac{1}{2}$ " long and slightly stump rooted. Medium large tops. Excellent for fall and winter use.

Hutchinson — A late, heavy yielding variety, good for fall use and winter storage, having a cylindrical root 10 to 14" in length, 1 to 2" in diameter, with principally an abrupt stump end. Flesh is deep orange, tender and of good quality when properly grown in a deep, light soil, well supplied with moisture. Roots should not stand more than 1 to $1\frac{1}{2}$ " apart to avoid oversize, coarse growth. Tops are of medium size, strong and vigorous. About 80 to 90 days are required from seeding to bunching size, although this variety is generally sold as a box or trimmed carrot.

Carrot Culture

Sow after April 15, and for continuous harvest, successively every 3 weeks until July 15 in a deeply-loosened, well-prepared seedbed.

Sow $\frac{1}{4}$ oz. of seed per 100' of row or 2 to 4 lbs. per acre, $\frac{1}{4}$ inch deep in rows 12 to 15" apart. Thin seedlings to stand 1-2" apart.

CAULIFLOWER

***Super Snowball** — A deep-headed strain that is more spreading than usual and gives better protection to the head, but requires tying. Best suited for early season planting for a crop in late June to early September. Ready for harvest about 65 days after transplanting. Heads usually 6-7" in diameter, rather spongy and will wither if held long after cutting. It should not be used to compete with later, more solid varieties in late fall.

***Danish Early** — A sure-heading strain of Snowball variety suitable for a main crop in the fall, maturing about 75 days after transplanting. Plant is small and compact. Heads are well protected but require tying.*

***Holland Erfurt** — A sure-heading main crop variety. The plant is erect with folding inner leaves for self-protection. The heads are deep, compact with pure white curd. The crop matures in good succession for a continuous harvest. It gives best quality product when brought to maturity under southern New England conditions during the last half of November.

Cauliflower Culture

For an early crop, sow inside from February 15 to March 15. Harden off and set outside as soon as ground can be prepared after danger of hard frosts.

For late harvest, sow the seed about the middle of May, transplant into the field about July 1. As soon as heads begin to form, draw the leaves over and tie them together for protection against sun and rain and to afford perfect



Planted at one time, these three sweet corns mature in sequence — Lee, Golden Cross Bantam, Ioana.

bleaching conditions. Cut heads while the white curd is compact and solid. Trim outer leaves to extend slightly beyond the curd for protection in handling and shipping. Side-dressings of nitrogen may be necessary if growth is slow. Set plants 20" x 3' apart.

Hollow stalks and browning of the curd, with or without an unthrifty condition of the plants, may indicate boron deficiency in the soil. If such conditions are found, consult your county agent or the Eastern States Farmers' Exchange fertilizer service for recommended treatment.

CELERY

Celery — Eastern States Tall Fordhook — The following paragraph with permission is quoted from "Varieties of Vegetables for 1945" by Dr. Paul Work of Cornell University, Ithaca, New York.

"Tall Fordhook, in its second trial year, confirmed the observations of 1943. It is a green celery with large, thick leaf stalks, of good length and heart and of exceptional table quality. The question has arisen whether or not this should be regarded as a synonym of Summer Pascal. Cornell trials suggest that its vigorous growth, good heart and high quality justify recognition as a distinct variety." Stalks are 8 to 9" to first joint, smooth and meaty and with a full heart, blanching to a light cream color. Ready to harvest in 105 days from field setting.

Fordhook Emperor (Houser) — Stalks 6 to 7" long to first joint — thick, smooth and meaty. Blanches slowly to a pale cream color. Extremely brittle. Ready for harvest 120 days after setting the plants.

Green Celery Culture

One-quarter ounce of seed plants 100' of row — 4 ozs. per acre. Sow seed outdoors about May 1 and transplant to field July 1 to 15. The soil should be deep and thoroughly prepared, and, if necessary, make side-dressings of available nitrogen fertilizer. When celery is fully grown, blanch with boards, earth or paper.

CHARD

Chard is a member of the same family as beets but has been developed for its foliage rather than for an enlarged root. It is most used as greens but the mid-ribs may also be cooked as asparagus or creamed celery. It ranks high among vegetables in content of vitamins, calcium and iron.

Twenty-five feet of row will supply adequately a family of 4 from early summer to freezing weather of fall.

***Chard — Fordhook Giant —** Dark green, heavy crumpled savoyed leaves with a white succulent stalk. Very productive and high in food value.



Lucullus — Similar to Fordhook Giant except that the leaves are yellowish-green.

Swiss Chard Culture

One-half ounce of seed plants 100' of row — 4 to 6 lbs. per acre. Chard is easily grown. Plants may be started in greenhouse or hotbed and then transplanted to the open field or planted directly outdoors as soon as soil can be prepared in spring. Sow 2" apart, 1/2" deep in rows 2' apart. Thin seedlings to stand 4 to 6" apart. By breaking off and using only the full-grown outside leaves, a continuous harvest may be enjoyed throughout the season.

CORN

HYBRID — MIXED YELLOW AND WHITE

***Corn — Sugar and Gold —** Seventy-four days from seeding to harvesting. An extra early, high quality sweet corn with a mixture of yellow and white kernels. It matures 5 days ahead of Early Golden 1.13. The ear is 6 to 6 1/2" long with 8 to 10 rows of kernels, some yellow and some white. The stalk is rather slender and about 4' tall. This variety is susceptible to bacterial wilt and therefore should not be planted south of Massachusetts except as a trial for a first early variety in the farm garden. Grown for market and roadside stand trade in certain areas north of Massachusetts.

HYBRID — YELLOW

***Early Golden 1.13 —** Seventy-nine days from seeding to harvesting. An early, high-quality yellow hybrid with 12 rows of kernels on ears which are 7" long when husked, nearly cylindrical in shape with only a little taper toward the top end. Most desirable for early markets which appreciate high quality. Highly resistant to bacterial wilt. Stalk is slender but stiff and strong, averaging about 5 1/2' tall in central Massachusetts. Husk is medium heavy. Kernels are sweet and considerably more tender than Spancross which it replaces.

Marcross 13.6 — Eighty-two days from seeding to harvesting — 8" ears containing 12 to 14 rows of yellow kernels. Eating quality is good and very acceptable on many markets.

Plants grow about 6' tall and are highly resistant to bacterial wilt. Most popular as a main early market variety.

***Carmelcross 30.13 —** Eighty-four days for this excellent quality yellow hybrid with an 8" ear containing 12 to 16 rows of kernels to properly develop. A heavy, tough husk covers the tips well. Plants are moderately leafy growing to a height of 5 1/4' and are highly resistant to bacterial wilt. This hybrid is very desirable for either home garden or market in the midseason period. Kernel color may be too light for a satisfactory looking product when canned.

Lee — A large, high quality yellow hybrid ready to harvest 3 to 5 days before Golden Cross Bantam. Ears are 8 1/2" long containing 12 to 14 rows of large yellow kernels which are covered with a tough husk. Stalk is 6 1/2" to 7' tall and resistant to bacterial wilt. Our trials showed the average weight of ears to be 8.84 ozs., whereas those of Lincoln weighed 7.85 ozs. Lee is two days earlier than Lincoln, fitting better into our program by not competing with Golden Cross Bantam which is highest in quality.

***Golden Cross Bantam —** This is a cross between two inbreds of Golden Bantam, 51 and 39, developed for the canning trade by Purdue University. It is the most widely grown hybrid in its season for market as well as processing, because of its high quality and long period of prime condition. The hybrid offered by Eastern States has been improved by the use of a descendant of one of these inbreds, so that the improved strain produces a stiffer, more leafy and darker green plant, a larger ear, a higher percentage of 14-rowed ears and matures about a day later than the strain previously offered. The ears maturing in about 99 days are about 8" long, cylindrical, with 12-14 rows of a good husk cover. Plants are dark green, leafy, about 6 1/2' tall, highly resistant to bacterial wilt. This variety should supply the main crop in every home garden and with its great uniformity in growth and maturity as well as exceptional quality and heavy yields, it is especially adapted for canning, freezing or mid-season markets.*

Ioana — Ready to harvest 4 to 5 days after Golden Cross Bantam when planted at the same time. Good quality, 8" ear, 7' stalk,

drought tolerant. Recommended especially for the Pennsylvania area.

HYBRID — WHITE

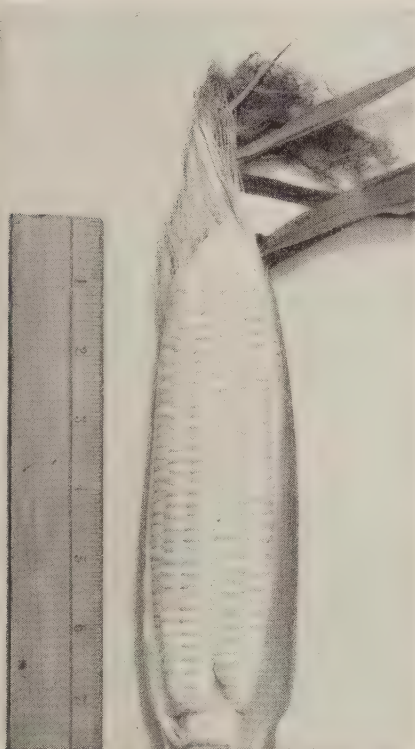
***Narrow-Grain Evergreen 14 x 13** — Replaces Stowell's Evergreen — very high in quality. Excellent for freezing and canning. Ears 7 to 8" long containing 16 to 18 rows of deep, white kernels. Stalk 7 to 8' tall, strong and vigorous and resistant to bacterial wilt. One hundred days from seeding to harvesting.

OPEN POLLINATED — YELLOW

Golden Bantam — A standard variety with cylindrical slender ears of high quality. The plant tillers (suckers) freely. It is susceptible to bacterial wilt.

Sweet Corn Culture

Two ozs. of seed plants 100' of row — 10 to 12 lbs. per acre. Plant after danger of hard frost, 1" deep, 8" apart in 30 to 36" rows. When planting in hills, drop 4 to 5 seeds 30" apart and thin to 3 stalks. For succession harvest, plant at weekly intervals or use preferably later-maturing varieties.



You can eat *Early Golden* corn 79 days after planting! It produces 12-row, 7-inch, yellow ears of high eating quality.

CUCUMBER

PICKLING (BLACK SPINE)

Association Pickling — A highly desirable black spine pickling strain developed by the Michigan Experiment Station for the National Pickle Packers' Association. The plants are very prolific and the fruit is dark green, symmetrical and square-ended, suitable for pickling at any size.

Chicago Pickling — The most widely used variety particularly adapted for large pickles. The fruits are thick, uniform, medium-green and square-ended. The plants are very prolific.

SLICING (WHITE SPINE)

Straight 8 — An early variety producing cylindrical, symmetrical smooth fruits well-rounded at the ends. When ready for use the color is deep green and the fruit is free from light tips and stripes. Highly productive.

A & C Special — A desirable market cucumber because of its uniform length, very dark green color and high productivity. The fruits taper at both ends, but have thick flesh with a small seed core.

Cucumber Culture — Pickling and Slicing

One-half oz. of seed plants 100' of row — 2 to 3 lbs. per acre. Plant after danger of frost is over and up to the middle of June in rows 5' apart; or in hills 5 x 5', 5 seeds to a hill. Plant 1½" deep.

EGGPLANT

New Hampshire Hybrid — A distinct early type, originated by Professor J. R. Hepler of the University of New Hampshire from a cross between Early Dwarf Purple and Black Beauty and selected by him through five generations for earliness, size, and color. The plant is 20 to 24" high, spreading, with small green serrate leaves; fruit is glossy, deep purple and only slightly smaller than Black Beauty and of the same shape. It is generally reported to be two weeks or more earlier than Black Beauty and New York Improved.

This variety was entered by Professor Hepler in the 1938 All-American Trials and received a silver medal.

Black Beauty — A standard variety of eggplant 2½ to 3' tall with an equal spread. Fruits are large, egg-shaped, 6 to 8" long, dark purple and remain firm long after picking.

Eggplant Culture

Eggplant is a hot-season crop. Sow inside after March 1, 1 seed per inch of row — ¼ oz. per 100'. Maintain temperature of 65° to 75° F. Transplant at least once, preferably into individual containers. One ounce of seed should give 2000 plants — enough for ¼ to ⅓ acre. After May 20, when soil is thoroughly warm, transplant into the field 2 to 3' by 3 to 5'. Nearly neutral soils favor growth, but diseases are usually less troublesome on more acid soils.

ENDIVE

Endive — Green Curled Ruffec — For summer and fall salads. A curled, attractive, fringed-leaved variety. Full-grown plants are 16 to 18" in diameter, tufty and full in the center. Midribs are thick and tender. The heart bleaches easily, is tender and of excellent quality.

Full Heart Batavian (Known also as Escarole) — A variety having broad, more or less twisted and waved leaves with thick white midribs. The inner leaves form a fairly firm head which bleaches to a creamy white and is crisp, tender and of fine flavor.

Endive Culture

One-half ounce of seed plants 100' of row — 4 to 5 lbs. per acre. For an early crop, sow about April 15 and for the late crop July 1 in fertile, moist soil, ½" deep in rows 20" apart.

Thin seedlings to 12" apart. When nearly mature, the heart is blanched usually by tying outer leaves together over the center. This should be done only when the plant is quite dry. Moisture in the heart starts decay.

KALE

***Blue Scotch** — Bright bluish-green, finely crumpled leaf almost completely hiding the midrib, moderately hardy, stands hard-freezes but seldom lives over a severe winter. Attains height of 20".

Blue-Green Siberian — Dull bluish-green color, coarsely crumpled with nearly flat midrib. Very hardy, will live over most winters.

Kale Culture

One-fourth ounce of seed plants 100' of row — 2-3 pounds per acre. Sow July 1 to 15, ½" deep in 18-24" rows. Thin seedlings to 18" apart in the row. Two or more cuttings should be secured.

***Kohlrabi — White Vienna** — An early dwarf variety having short green leaves. The thickened stem is globular and light green in color. The flesh is white, crisp and tender when young.

LETTUCE

Black Seeded Simpson — An early loose-leaved variety that can be used in the home when very small. The plant is hardy and vigorous, doing well in midsummer. The leaves are yellow-green, slightly frilled and crumpled, forming a compact bunch at the heart, which is crisp and tender.

Lettuce — Oak Leaf — An early, crisp, sweet and unusually attractive variety for the farm garden. Grows well in partial shade or open ground during the summer months. Leaves shaped like some species of oak leaves. Leaves are two-thirds bleached when heads are large as they grow close together in the head. Try it also on your roadside stand.

White Boston — A good white-seeded butterhead variety. The leaves are light green and free from brown tint. The leaves are thick, smooth, the heart is buttery yellow and of excellent quality. It is especially adapted for home gardens and near-by markets. It is earlier than the iceberg types.

New York 12 — A very important white-seeded, crisp head variety. It has dark green foliage, develops a large solid head, matures quickly and has good quality. It is being replaced somewhat by Imperial 847, which is somewhat more sure heading, although slower growing. New York 12 should still find a place because of its rapid growth for the first early spring crop.

Imperial 44 — A strain of the "Iceberg" type developed by the USDA and found by Cornell University to be well adapted to the



You saw this one last month — but take John Andrew's word for it: *Oak Leaf* lettuce belongs in your garden.

northeastern United States. The plant is of medium size with heads slightly flattened and very solid. Somewhat subject to tip burn. This variety apparently needs a very uniform moisture supply and probably heavy fertilization.

Imperial 847 — A lettuce of the "Iceberg" type selected by Dr. I. C. Jagger of the USDA for summer and fall production. Very sure heading. Heads somewhat flat but solid and crisp. This variety in many locations shows indications of being a more dependable cropper than New York 12, but is slower growing. Black-seeded.

Great Lakes — A most recent introduction by USDA and Michigan Experiment Station which is outstanding in its ability to head in midsummer, the seed stalks developing very slowly even under conditions of high temperature. It received the bronze medal award in the All-American new variety selections of 1943.

The outer leaves are light grass green, large with wavy edges, nearly flat blade, midvein thick and somewhat coarse. The heads are large, 6 to 7" in diameter and 5 to 6" high, extremely hard and solid weighing about 2 lbs. each. The inner leaves are crisp and brittle, tightly packed and white to pale green in color.

This variety is highly resistant to tip burn and bottom rot, but some loss may occur from aster yellows, the leaf hopper carriers of which are most numerous in midsummer.

This is the most promising variety so far developed for the successful production of summer head lettuce in Eastern States territory.

Lettuce Culture

Early Crop — One pound of seed produces plants for one acre. Sow in greenhouse in early February. Transplant in 2-3 weeks to flats

2 x 2". Harden off and set in field as soon as danger of hard freeze is past, 12 to 18" apart in 12 to 15" rows.

Later Crops — One-half ounce of seed plants 200' of row — 2 lbs. per acre. As early as soil can be finely fitted, sow $\frac{1}{4}$ " deep in 12 to 15" rows. Thin seedlings to 12 to 18". For succession, sow at 2-week intervals to July 25. Field soil must be rich for good crop.

MELONS

MUSKMELON — SALMON FLESH

Emerald Gem — A good home and market garden variety but not a shipping melon. A two-pound globular melon slightly flattened, $4\frac{1}{2}$ by $5\frac{1}{2}$ ", ribbed, outer color green to yellow and slightly netted. The flesh is thick, salmon-colored, sweet and the seed cavity is very small.

Honey Rock — This nearly round, medium-size, $5\frac{1}{2}$ by 6" melon weighs 4 to 5 pounds. The skin is gray-green and is covered with a coarse netting. The flesh is thick, orange-salmon in color and has a typical musky flavor. A home and market melon but not for long shipment.

Hale's Best 112 — One of the best early market melons. Fruits oval, very slightly ribbed, and the hard rind is heavily netted, making it a good shipper and attractive in appearance. The flesh is very thick, sweet, free from stringiness and a rich deep salmon color. The seed cavity is small. Recommended for New England and northern Pennsylvania.

Hale's Best 36 — One of the best early market melons. Fruits nearly spherical, slightly ribbed and have a heavily-netted hard rind. The flesh is rich salmon color, thick, sweet, and free from fiber. A popular melon for ship-

ping. Recommended for southern Pennsylvania, Delaware and Maryland.

Hearts of Gold — A very popular mid-season variety for home or market garden use. Fruits are practically round, 6" in diameter, weigh 4 lbs., distinctly ribbed and covered with a fine gray netting. Flesh is very thick, deep pink-salmon, tender and sweet, having a characteristic musky flavor.

Iroquois — High flavor with a very sweet salmon flesh. Ripens about the same time as Bender's Surprise, which it replaces because of its resistance to fusarium wilt. A little smaller than Benders but a vigorous grower. Especially recommended for the New England states for a mid-season variety.

Pride of Wisconsin — An extremely high quality, large, oval, heavily-netted, salmon-fleshed cantaloup. The flesh is firm, sweet and most appetizing. An excellent market as well as home garden variety. Fruits are from 6 to 7" long and almost as wide. Potted plants set out at our trial grounds on June 7 produced melons by August 15. Plant with caution north of Massachusetts. Well recommended for Pennsylvania, Delaware, and points south of Massachusetts.

Muskmelon Culture

One-half ounce of seed plants 100' of row — 2 to 3 lbs. per acre. For early forcing start under glass in veneer bands or pots about April 1, develop slowly and transplant after hardening about May 1-15. Plant outdoors May 15 to June 1 either in rows or hills 1" deep. If in rows, make rows 5' apart and thin plants to 12" apart in the row. If in hills, make hills 4 x 6' apart, allowing 3 or 4 plants to the hill.

WATERMELON

White Mountain — This is an early small-fruited variety developed by the University of New Hampshire, adapted to many areas formerly considered too cool for watermelon production, such as much of central and northern New England and the higher elevations of Pennsylvania. On light soils in central New England, ripe melons have been harvested by August 1, 70 days after planting seed, with continued production until frost. In warmer areas this melon does not do as well. Fruits are about 6" long by 5" in diameter and weigh 3 to 5 lbs. The rind is thin and brittle and will not stand shipping or rough handling. The color is light green with irregular darker stripes. The flesh is medium red, crisp and sweet. It deserves a trial in the areas where adapted as described.

Northern Sweet — Flesh deep orange-red and very sweet. Fruits average 8 to 10 lbs. and are globular, dark green striped with medium green. An early and prolific variety introduced by the Minnesota Agricultural Experiment Station from Siberia. Rind is thin but rough. Seeds are white.

Kleckley's Sweet — A second early variety of medium to large size, weighing 30 pounds, oblong in shape and dark green in color. Rind is thin. Flesh is bright red, very sweet, firm, solid and of excellent quality. Seeds are white. Will not stand very rough treatment in shipping, but especially good for local markets and home use.

Watermelon Culture

One ounce of seed plants 25 to 30 hills or 200' of row — 2 lbs. per acre. For early forcing, start under glass in veneer bands or pots early in April, and about May 15 transplant into field 2' apart in 8' rows. Seed may be sown direct in the field after soil has become warm. Plant 1' deep in hills or rows. If in hills, plant 8 seeds 8 x 8', later gradually thinning to 3 or 4 vines per hill. If in rows, space seeds 1' apart in 8' rows, later thinning vines to 2'.

ONION

ONION SEED — YELLOW

Ebenezer — Seed of this variety is used extensively in growing sets which when planted the following spring produce an early crop. Early spring planting also gives marketable bulbs the same season. Bulbs are flat but deep, of medium size, dark yellow, very firm, mild, and with a thick skin.

Early Yellow Globe — An early, mild, medium-sized yellow variety which is firm and solid with tough clinging skins of a deep yellow color. The quality and texture are good and this variety stores well.

Yellow Globe Danvers — A round, medium-large, firm and solid yellow variety. A very popular storage onion with a slight yellow tone in its white flesh.

Utah Valencia — An outstanding strain of the sweet Spanish type. Yellow-skinned with white flesh, large — weighing up to 24 ozs. when grown from transplants and usually ranging in weight from 4 to 10 ozs. where seeded directly in field. Very mild and of pleasing flavor — "sweet as an apple." A good strain for winter storage.

ONION SEED — WHITE

Silverskin White Portugal — Grown for white onion sets which produce white onions early. Excellent for small pickling onions and for medium-sized, hard, flat, clear white, fine-grained onions which have a pleasing flavor. The ideal white onion for the farm garden.

Onion Culture

One-half ounce of seed plants 100' of row — 4 to 5 lbs. per acre. Sow in field from April 1 to May 1, $\frac{1}{2}$ " deep in rows 20" apart. Thin seedlings to stand 4" apart. For producing transplants, sow seed in hotbeds or greenhouses January 15 to February 15, harden off and transplant seedlings to field about April 25.

PARSLEY

Paramount — A long stem, dark green, moss-curved variety that is frost hardy and slow growing. It develops to full growth in 120 days but can be cut earlier.

Parsley Culture

One-half ounce plants 100' of row — 3 to 4 lbs. per acre. For early summer harvest, plant about April 1 and to winter-over with some protection, such as straw or sash, plant from August 1 to September 1. Sow in soil that is fertile, barely covering the seed in rows 12" apart. With a light seeding, no thinning should be necessary.

PARSNIP

Model — A parsnip of the Hollow Crown type but less hollow below the crown than the standard. The root is of medium length (6 to 10"), about $2\frac{1}{2}$ to 3" in diameter at the top, free of side roots with skin smooth and quite white. The edible quality is excellent, being tender and sweet especially after freezing. Requires about 150 days to make full growth.

Hollow Crown — The most popular variety of bright, smooth white parsnips. Roots are 6-8" long, $2\frac{1}{2}$ -3" at the shoulder, hollow-crowned and uniformly tapered, carrying good thickness from crown to tip.

Parsnip Culture

One-half ounce of seed plants 100' of row — 4 to 6 lbs. per acre. Sow seed in early spring $\frac{1}{2}$ " deep in rows 15 to 18" apart. Thin seedlings to stand 4" apart in row. Seed is very slow to germinate.

Soil should be well prepared and not over-balanced with nitrogen or the plants will tend to grow large tops but small roots.

PEAS

WRINKLED

World Record — A good pea for the first early market and for the home garden. Vines are semi-dwarf. Pods average about $3\frac{1}{2}$ " long, are medium green, broad and well filled with peas of good size and color and of good quality for the season.

***Thomas Laxton** — A second-early, semi-dwarf pea of very highest eating quality, being tender and sweet when at proper stage of maturity. It is the premier home-garden variety and is being extensively used for quick freezing. The vines are light green, and productive. While support is not essential, it makes harvesting in the home garden much easier. The pods are large, straight, square-ended and tightly filled with from 7 to 9 peas.*

Little Marvel — A dwarf pea of exceptional quality for the home garden. Pods are dark green, tightly filled and borne in doubles, therefore very prolific. This variety shells out a high proportion of peas per unit weight of pods.

Laxton's Progress — The largest-podded and most attractive pea of the Laxton group. Vines and pods dark green, peas are large and of high sugar content. Vines short.

Hundredfold — Pods dark green, and well filled with large peas of high sugar content. Due to habit of bearing pods double, this strain of the variety is especially productive.

Gilbo — An early strain in the Stride group with open-type dwarf vines somewhat resistant to aphid attack. The pods are dark green, slightly curved with eight or nine large dark green peas. Resistant to fusarium wilt.

Alderman (Dark Telephone) — The best of all tall, late peas for home and market gardens. Pods are plump to round, dark green and well filled. The plant branches and bears profusely over a long, late picking season. The vines must be well supported with tall brush or wire. Wider row spacing is more necessary than for varieties with shorter vines. Resistant to fusarium wilt.

Being proud of your peas is one of gardening's pleasures and for size, color and productivity *Laxton's Progress* is a happy choice.





Easy to grow and especially good to eat either cooked or raw, is this pepper — *Italian Sweet*.

EDIBLE POD

These peas are not shelled before eating but are cooked and eaten, pods and all. For best quality this must be done shortly after the peas *begin* to form inside the pod. After the peas are fully developed, the pods become papery and tough. When pods are kept picked at this early stage, these varieties will yield large quantities of delicious pods over a long picking season. Both are resistant to fusarium wilt.

Dwarf White Sugar (Lancaster county, Penna., strain) — The pods of this white-blossomed variety reach edible maturity at a very early age — about 50 days. The vines are about 30" tall — producing prolifically the 2 to 2½" long edible pods.

Mammoth Melting Sugar — These 4" pods are not ready for eating until about 75 days after planting, when they are broad, occasionally twisted, brittle, succulent, free from parchment and of high sugar content. Vines grow 60" tall and should be supported.

Pea Culture

Sow 1 lb. of seed per 100' of row — 90 to 150 lbs. per acre — on fertile well-drained soil as early in the spring as soil can be worked. Place seeds 1" apart and cover with 1 to 2" of soil. Single rows should be about 3' apart. Some prefer planting twin rows 8 to 12" apart with 40" or more between pairs. Brush or wire can be put between the rows of each pair for support.

Thorough seedbed preparation, high fertility, early planting and weed control are essential for a good crop of peas. Fertilizer must not come in direct contact with the seed. Tall growing varieties must be supported by brush or wire and such supports make harvesting of all varieties easier.

PEPPERS

SWEET

Peppers — Early Giant — A sweet pepper of the bullnose type for home and market gardens. Plants are dwarf, upright and very productive. Fruits 4½" long and 3½" in diameter, are gently tapered, 3-lobed, of mild flavor, and deep green changing to bright red at maturity.

***Italian Sweet** — Earlier than some strains of Early Giant. Plants are medium green with medium-size leaves. Fruits are conical, nearly straight, 5 to 6" long, 2½" wide at the shoulder with the stem insertion nearly flat, and borne pendant. Fruits are dark green, maturing to a deep red with a slightly roughened skin which is not glossy. The flesh is medium thick. Flavor is sweet and mild, better than other peppers of similar wall thickness. This variety sets fruit heavily under conditions causing vegetative growth in other varieties. This



variety should find a place in every home garden because of its quality, but it may not meet with favor in some markets because of its long tapering shape. High in vitamin C. Very sweet and palatable either raw or cooked.

World Beater — A late variety popular with market gardeners and shippers. Fruits are 5" long, 3½" in diameter and 4-lobed, thick-fleshed, mild and sweet, glossy green, changing to bright red at maturity.

California Wonder — Developed by Eastern States to produce heavy yields and set fruits under adverse conditions. Fruits are 4½" long and 4" in diameter, 4-lobed, chunky, smooth and deep green changing to a bright crimson at maturity. Flesh is exceptionally thick.

HOT

Long Red Cayenne — An early hot variety, used largely for pickles, canning and drying. Plants are large and productive. Fruits 5" long, ¾" in diameter, tapering, frequently twisted, deep green changing to brilliant red at maturity and very pungent.

Pepper Culture

One ounce of seed produces about 2000 plants, 5 ozs. required per acre. Sow inside about March 15, transplant once or twice and finally set in field after danger of frost is over, 20 by 30" apart. A moderately fertile soil is desirable.

PUMPKIN

New England Pie — A small, high-quality pie pumpkin, also known as Small Sugar. Fruits are round, flattened at the ends, somewhat ribbed, and weigh 6 to 8 lbs. The skin is smooth, hard and a deep orange color. The flesh is sweet, thick, orange-yellow and of high quality.

Connecticut Field — A field variety grown for stock feed, canning, pie stock and Halloween decorations. Often planted in corn fields. Fruits are large, 15 to 25 lbs., round and flattened at the ends. Surface is hard, smooth, ribbed and deep orange color. The flesh is thick, orange-yellow, sweet but coarse.

Pumpkin Culture

One ounce of seed plants 20 hills — 4 lbs. per acre. Plant after danger of frost, 1" deep in 8 x 8' hills, 5 seeds per hill and thin to 2 or 3 plants per hill.

RADISH

Early Scarlet Globe — The most popular home and market garden radish, very early, consequently suitable for forcing under glass. Roots are oval, bright scarlet with a small to medium top. Flesh is of high quality, crisp and tender.

Sparkler White Tip — The roots of this variety are round, smooth, dull scarlet-red, with the lower ½ of the root white. The flesh is mild, white, crisp and tender. A very attractive radish when bunched for market and when served on the table because of its two-color skin.

White Icicle — The earliest and most extensively used long, white, summer radish. The tops are small. The roots are 5 to 6" long, slender, of uniform thickness and smooth. The flesh is very crisp and mild.

Crimson Giant — A second early with deep crimson globular root, remaining crisp and sweet for a long time as it increases in size, while other varieties become hot and pithy with age. Roots 1-1½" in diameter with white flesh.

Radish Culture

One ounce of seed plants 100' of row — 12 lbs. per acre. For continuous harvest, sow every 2 weeks from April 1 to September 1 in a fertile

and well-prepared seedbed. Sow $\frac{1}{2}$ " deep in rows 12" apart. Uniform planting with seed $\frac{1}{2}$ " apart in the rows should require no thinning.

RUTABAGA

Macomber — This strain was developed by growers in Bristol county, Massachusetts, and is well adapted to the Cape Cod region. Roots are ovate in shape, 5 to 6" in diameter, weighing 4 to 5 lbs., white, but rose-colored on top. Flesh is white, crisp, firm, of delicate flavor and excellent quality. Seed should be planted about July 15 so that most growth is made during cool fall weather.

Alberger — Globular in shape, yellow-fleshed with a purplish color above ground. Early, flesh is fine grained, high in quality. The main crop yellow variety. We've tried to get this into production for four years. This year's seed crop is good.

Rutabaga Culture

As for all root crops, the seedbed should be deeply prepared and well fertilized. One ounce of seed plants 400' of row — 2 lbs. per acre. Sow $\frac{1}{2}$ " deep in 18 to 24" rows from June 15 to July 10 or just in time to allow maturity before hard freezes. Thin seedlings to 6 to 8". Seed is sometimes broadcast and raked in lightly, using 3 to 4 lbs. per acre. For storage, leave roots in the ground until late fall, then harvest before a hard frost and store in a cool, moist cellar.

A watersoaked browning or blackening of areas in the fleshy root may indicate boron deficiency in the soil. If such a condition is found, consult your county agent or the Eastern States Farmers' Exchange fertilizer service for recommended treatment.

SALSIFY

Mammoth Sandwich Island — An improved variety. Commonly known as "vegetable oyster." Roots are 6 to 8" long, 1 to $\frac{1}{2}$ " thick, tapering, smooth and dull white. Roots may remain in the field over winter similar to parsnips. Used principally in soup stock.

Salsify Culture

One ounce of seed plants 100' of row — 7 to 8 lbs. per acre. Sow in a fertile soil from April 15 to May 1 in a mellow seedbed. Sow $\frac{1}{2}$ " deep in rows 2' apart. Thin seedlings to 3" apart in the row.

SPINACH

Reselected Bloomsdale — A fast-growing, medium green, attractive savoy spinach. This variety is substituted for Dark Green Bloomsdale, which is not available. In warm weather with long days it shoots seed stalks within a few days after reaching marketable size as it ordinarily should be used only for the first spring planting.

Long Standing Bloomsdale — A second early and main crop variety standing 12-14 days longer than regular Bloomsdale, but not as fast growing. The thick, crumpled, rosette leaves are erect, forming a large plant with a spread of 12 to 16". May be sown from earliest spring planting until midsummer, realizing that all spinach seeds quicker in midsummer.

Summer Savoy — Acceptable seed not available.

***Virginia Blight Resistant Savoy** — A savoy variety resistant to blight for fall cut-

ting. Plants are vigorous and seed rather quickly if planted before August 15 to September 15, depending on location and weather. The rosette leaves are thick, crumpled and erect, forming a large plant with a spread of 12-14". Also may be wintered over where temperatures are not too severe and some protection is available.

Old Dominion — An erect, dark green, slightly-crumpled variety particularly adapted to wintering over south of Massachusetts. It is slower growing than Virginia Blight Resistant and stands longer in the spring. For overwintering in southern New England, plant in early September; Pennsylvania, Delaware and Maryland, in late September. Not adapted to spring planting.

Spinach Culture — All Varieties Except New Zealand

One ounce of seed plants 100' of row — 8 to 12 lbs. per acre. Sow seed $\frac{1}{2}$ " deep, 2 to 4" apart in 14 to 18" rows. The seedbed should be well drained, fertile, and finely prepared. Side-dress with nitrogen as needed during the growing season.

New Zealand — Not a true spinach but of similar quality when cooked. Thrives in hot weather when other spinach bolts to seed. Plants are branched, often spreading 3 or 4', and grow to a height of 1-2'. The leaves are thick, dark green and somewhat triangular in form. Only the tender branch tips should be used and frequent cuttings can be made all summer.

Spinach Culture — New Zealand

One-half ounce of seed plants 100' of row — 3 lbs. per acre. Soak seed 48 hours before planting to hasten germination. Sow from May 1 to June 1 for summer use, in hills, 3 x 4' apart, 4 seeds per hill and 1" deep. Seedbed should be well drained and finely prepared.

SQUASH

SUMMER BUSH VARIETIES

Early Prolific Straight Neck — This strain produces medium-sized plants bearing smooth-skinned fruits 10-12" long, uniformly light orange-yellow in color with no flecking. Seed cavity about 4" in diameter and the blossom end is rounded to a small scar. This strain sets heavily and produces over a long period.

Long Cocozelle — A second early summer variety with cylindrical smooth, straight fruits, dark green with lighter stripes, which change to deep yellow at maturity. Flesh is firm and greenish-white and the best quality of all varieties of this type. It is very prolific, picking over a long period. Fruit can be picked in various stages of growth from 6 to 20" in length; the larger ones require paring.



The white, delicate flavored flesh of Macomber rutabaga puts it on the "must" list for farm gardens.

Squash Culture — Summer Bush

One ounce plants 50 hills — 3 to 4 lbs. per acre. Plant after danger of frost up to June 15, 1" deep in hills 4 x 4', 6 seeds per hill. Thin to 3 plants per hill.

FALL AND WINTER (Trailing Vines)

Buttercup — A small-fruited variety belonging to the Hubbard group. Fruits are flattened, dark green, mottled with light green, have a medium-sized turban, adapted for fall and winter use. Flesh is free from stringiness, thick, deep yellow, dry and sweet. Its high quality makes it desirable for roadside markets.

Warren's Essex Hybrid — Fruits weigh from 10-20 lbs., 8 to 12" from stem to blossom end and 12 to 16" in diameter. A flattened, cylindrical turban shape, with a distinct button on the blossom end. Skin is hard, warted and orange-red in color. The flesh is deep orange, thick, dry and sweet. For fall markets.

Des Moines — Also known as Acorn and Table Queen. Fruits are dark green, pointed acorn shape, uniformly-ribbed, smooth, thin-shelled, 4 to 5" in diameter and 6" long. Flesh is light yellow, smooth in texture and sweet. Especially delicious when baked in the half shell for individual servings.

Vermont Hubbard — A green Hubbard type with fruits 10-14" in diameter, 12-16" long, weighing 10 to 20 lbs. Shell is very hard, flesh exceptionally thick, deep orange, dry, fine-grained, excellent flavor. Stores well.

Blue Hubbard — The standard variety for winter storage. Fruits 20" long, 10" in diameter, weighing 15 to 30 lbs. with solid neck and blossom end. The shell is blue, hard, brittle, and medium-warted. Flesh is orange-yellow, thick, medium-dry and sweet.

Golden Cushaw — An exceedingly high quality, productive squash, highly desirable for home gardens, roadside stands and many



VEGETABLE SEED ORDER

to

EASTERN STATES FARMERS' EXCHANGE
WEST SPRINGFIELD, MASSACHUSETTS

V

SEND PAYMENT WITH ORDER TO AVOID C.O.D. CHARGES

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Note: On "Add-to-Draft" orders only! Representative sign below if he approves
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Order only varieties and sizes as listed in catalogue.

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THIS FORM MUST BE
RETURNED WITH YOUR
LETTER IF YOU WRITE
ABOUT THIS ORDER.

Quantity	Code Numbers	Column 1				Quantity	Code Numbers	Column 2			
		Indicate Variety Desired When More than One is listed in the Catalogue	✓	Unit Price	Value			Indicate Variety Desired When More than One is listed in the Catalogue	✓	Unit Price	Value
		ASPARAGUS SEED				Brought forward from Column 1					
		BEAN						CARROT			
								CELERY			
								CHARD			
								CORN - SWEET			
		BEET									
		BROCCOLI									
		CABBAGE									
								CUCUMBER			
		CAULIFLOWER									
Total of Column 1						Total of Columns 1 and 2					

Quantity	Code Numbers	Column 3				Quantity	Code Numbers	Column 4			
		Indicate Variety Desired When More than One is listed in the Catalogue	✓	Unit Price	Value			Indicate Variety Desired When More than One is listed in the Catalogue	✓	Unit Price	Value
Brought forward from Column 2						Brought forward from Column 3					
		EGGPLANT						PEPPER			
		ENDIVE									
								PUMPKIN			
		KALE									
		KOHLRABI						RADISH			
		LETTUCE									
								RUTABAGA			
		MUSKMELON									
								SPINACH			
		WATERMELON									
								SQUASH			
		ONION									
		PARSLEY						TOMATO			
		PARSNIP									
		PEA									
								TURNIP			
Total of Columns 1, 2 and 3						Total of entire order					

CONDITIONS:

This order is subject to acceptance by the West Springfield office of the Eastern States Farmers' Exchange and after such acceptance is further subject to cancellation or prorationing by the Exchange in event of seed crop failures, strikes, fires, embargoes or other contingencies beyond the control of the Exchange. It is further subject to change by the buyer in event of necessary change in his cropping plans upon presentation of satisfactory explanation in writing to the Exchange office in West Springfield and if desired kinds are available.

The member agrees that shipment will be made and accepted under the following condition:

The Eastern States Farmers' Exchange has exercised all reasonable care and precautions in the production, preparation and distribution of this seed, but cannot be responsible for the operation of Nature's laws, nor control the conditions under which it is later stored, handled, planted or grown; so therefore gives no warranty express or implied concerning the description, quality, productiveness or condition of the resulting crop and shall in no case be liable for an amount greater than the amount actually paid for the seed. Statements of germination, description and other information are given as a report of our tests, observations and advice.

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Send payment with order and avoid C.O.D. Charges

ASSEMBLED BY _____

CHECKED BY _____

DATE SHIPPED _____

THIS ORIGINAL ORDER WILL BE RETURNED TO YOU.



The Eastern States strain of *Butternut* squash excels in thick-fleshed fruits . . . grand for pies, too!

to large, globe-shaped, bright red, smooth, thick-walled, good quality and borne in clusters of 4 or 5. Used extensively for homes, market and canning.

Rutgers — Developed by the New Jersey Experiment Station from a cross of J.T.D. and Marglobe. The vines are vigorous and rank growing under moist conditions. The fruit is deep scarlet, firm fleshed and of flattened globe shape, larger than Marglobe. For proper growth and fruiting, nitrogen applications must be withheld until after fruit setting; nitrogen can then be applied as a side-dressing.

Tomato Culture

One ounce of seed should produce 3000 plants, enough for $\frac{3}{4}$ acre unpruned or $\frac{1}{2}$ acre staked and pruned. Sow in greenhouse early in March (7 to 9 weeks before planting). Transplant to 2 x 2" or more to avoid crowding. Harden off and transplant to the field after danger of frost, about May 15 or earlier if protected. Set 2 x 4' if to be staked and pruned or 3 to 3 $\frac{1}{2}$ x 4' if to be left on the ground.

TURNIP

Purple Top White Milan — An early variety for forcing or field culture. Tops are small and compact with strap leaves. Roots have purple top with white base, grow 3 to 4" in diameter, deep but flat, white-fleshed, sweet and tender. For the early crop sow seed from April 1 to May 1; late crop July 15 to August 1.

Purple Top White Globe — Should be planted in late July to August 1, as it makes its best development in cool fall weather. The root is globular in shape, 3 to 4" in diameter, purple above ground and white below. The flesh is crisp, white, fine-grained, sweet, mild and tender. Tops are dark green, lobed, large and erect.

Amber Globe — A yellow-fleshed variety for fall planting. Later maturing than Purple Top White Globe so should be planted correspondingly earlier. When grown in midsummer, flesh becomes bitter. Roots semi-globular, 5 to 6" in diameter. Flesh pale yellow, fine-grained, tender and sweet.

(Also see Rutabaga varieties.)

Turnip Culture

As for all root crops, the seedbed should be deeply prepared and well fertilized. One ounce of seed will plant 300' of row — 2 lbs. per acre. For early crop, seed as early as ground can be prepared, for late crop, in late July or in August or just in time to allow maturity before hard freezes. Sow $\frac{1}{2}$ " deep in 12 to 18" rows. Thin seedlings to 4 to 6". Removals may be used for greens. For late crop, seed is sometimes broadcast and raked in lightly, using 2 to 4 lbs. per acre. For storage, leave roots in the ground until late fall, then harvest before a hard frost and store in a cool, moist cellar.

markets. The fruits are golden russet or light tan in color with long, generally curved necks and a bulbous seed end. They average to weigh about 4 to 5 lbs. each. When mature, the flesh is a rich orange color, dry and sweet with only a small seed cavity in the bulbous end. The neck is solid. When green, the fruits can be used just as the summer bush varieties but with much more flavor. When fully matured and carefully handled and stored they can be kept all winter. Will not cross readily with pumpkins or other squashes.

Squash — Butternut (Eastern States strain) — A heavy yielding strain. Fruits 10-12" long, 4-5" thick with a small bulb and solid neck. Flesh is fine-textured, sweet and excellent for pies. Skin is tan-colored and smooth.

Culture — Fall and Winter Squashes

One ounce of seed plants 20 hills — 4 lbs. per acre. Plant after danger of frost, 1" deep in 8 by 8' hills, 6 seeds per hill. Thin to 2 or 3 plants per hill. Keep down weeds and control leaf-feeding insects and the stalk borer.

TOMATO

Pennheart — An extra early variety developed by Dr. C. E. Myers of Pennsylvania State College and first grown commercially in 1943. The vine is dwarf or determinate, developing to only about 30" in diameter. The plants should be started medium early and not subjected to any checks in growth before setting in the field. They then produce heavily over a short early period before standard vine varieties yield a commercial picking. Foliage is held well, giving considerable protection from sunscald. Fruits are generally smooth, flattened

globe in shape, deep red in color, often with a green shoulder, and weigh 5 to 7 ozs.

This variety is intended to be useful only for a first early crop. Close planting — 18 x 30" — produces a heavy yield for the area occupied before the standard vine varieties come into production; and after the early crop is harvested there is still time to produce some quick growing crop on the same land.

Bonny Best (Shirley) — Selected for earliness, vines somewhat susceptible to blight, medium size, fruit protection by foliage fair. Fruits are a flattened globe, 5-6 ozs., smooth, of deep red color, thick-walled, and mature rapidly.

Stokesdale — A highly productive, red-fruited variety in the John Baer season (73 days) and resistant to fusarium wilt. The vine is vigorous and leafy, but it fruits so heavily that some extra nitrogen must usually be supplied about the time the first fruits ripen to retain the foliage. The fruits are of medium size, 5 oz., globular, 5 to 6-celled and medium red. Crop short; available only in four oz. packages.

Pritchard — A second early variety developed by the USDA and noted for disease resistance. Fruits are large, smooth, globular, solid, with thick walls and small seed cavity, scarlet in color and self-topping. A good variety for market and home gardens and for canning. The plant is very prolific and vigorous in growth, affording excellent protection for the fruit from sun scalding.

Marglobe — Developed by the USDA and noted for its high yields and resistance to fusarium wilt. Plant is medium to large and affords good fruit protection. Fruit is medium

Price List of Eastern States Vegetable Seeds



One variety may be ordered in smaller units to make a larger unit — at an additional charge of 2¢ per package when less than a pound and 1¢ per pound when over a pound. Varieties cannot be combined to obtain lower prices of larger units.

Orders which specify a particular size of package will take the rate of that size.

Code No.	Kind and Variety	Days to Grow	Description	Price					
Asparagus Seed — No seed treatment				Packet	4 oz.	1 lb.	5 lbs.		
13	Mary Washington	3 yrs.	Large, green, rust resistant	.10	.60	1.75	7.00		
Asparagus Roots				50 Roots	100 Roots	500 Roots	1000 Roots		
Mary Washington 1 yr.				1.50	2.25	9.00	16.00		
Bean — Treated with Spergon				Packet	1 lb.	5 lbs.	25 lbs.	100 lbs.	
Bush Green Snap									
29	Stringless Valentine	48	Round pod, 6½", early	.10	.40	1.60	6.25	23.00	
21	Bountiful	49	Flat pod, 6½", early	.10	.40	1.60	6.50	24.50	
24	Plentiful	50	Semi-round, 2nd early	.10	.40	1.60	6.25	23.00	
22	Stringless Green Pod	52	Round pod, 6", 2nd early	.10	.40	1.60	6.25	23.00	
23	Stringless Tendergreen	52	Round pod, 6", 2nd early	.10	.40	1.60	6.50	25.00	
26	Long Tendergreen	52	Round pod, 7", 2nd early	.15	.45	1.80	7.00	26.00	
Bush Wax Snap									
45	Pencil Pod Wax	50	Round curved pod, 6½", black seed	.10	.40	1.60	6.75	26.00	
47	Brittle Wax	52	Round pod, 6", white seed	.10	.40	1.75	7.00	27.00	
42	Sure Crop Wax	53	Flat pod, 6", black seed	.10	.40	1.60	6.50	25.00	
Bush Shell or Field									
63	French's Horticultural	85	Carmine splashed, green shell, 7-8"	.10	.40	1.75	7.00	27.00	
81	Maine Yellow Eye	90	Yellow eye, 4½" pod, semi-runner	.10	.30	1.30	4.50	16.00	
84	Geneva Red Kidney	95	Red kidney, 5" pod, disease res't.	.10	.40	1.40	5.25	20.00	
Bush Lima									
101	Fordhook	75	Large seeded potato type, 5" pod	.15	.40	1.75	7.00	27.00	
105	Fordhook 242	75	5" pod, heavy producer	.15	.40	1.75	7.50	28.00	
Pole Lima									
112	King of Garden	85	Large seeded, 2nd early, 5" pod	.15	.40	1.60	6.25	24.00	
Pole Snap									
76	Kentucky Wonder	65	Green, round pod, 9"	.15	.40	1.60	6.25	24.00	
Edible Soybeans									
33	Giant Green	90	Large seeded, green	.15	.40	1.60	6.25	24.00	
Beets — Treated with Arasan				Packet	4 oz.	1 lb.	5 lbs.	25 lbs.	
125	Crosby Early Wonder	58	Early Market, oval	.10	.55	2.00	8.50	37.00	
146	Perfected Detroit	65	Late Market, globe	.10	.55	2.00	8.50	37.00	
Broccoli — Treated with Semesan or Arasan				Packet	½ oz.	4 oz.	1 lb.	5 lbs.	
202	Early One	88	Green sprouting, heavy yielding	.10	.30	2.00	7.00	32.00	
207	Calabrese Regular	95	Green sprouting	.10	.20	1.25	4.00	19.00	
Cabbage — Treated with Semesan or Arasan				Packet	½ oz.	4 oz.	1 lb.	5 lbs.	
232	Golden Acre Regular	70	Round, early, 3-3½ lbs.	.10	.30	1.50	5.25	24.00	
237	Golden Acre Yel. Res't.	70	Round, early, 3-3½ lbs.	.10	.30	1.50	5.25	24.00	
244	Marion Market	80	Oval, yellows res't, 5-7 lbs.			Supply Exhausted			
284	Drumhead Savoy	90	Savoy, green, flat, 6-7 lbs.	.10	.35	1.60	5.50	24.00	
263	Penn State Ballhead	110	Round, flat top, 6-7 lbs.	.10	.35	1.75	6.00	28.00	
264	Wisc. No. 8 Yel. Res't.	110	Round, flat top, yellows res't, 6-8 lbs.	.10	.35	1.60	5.50	24.00	
291	Mammoth Rock Red	110	Smooth, red, oval, late	.10	.35	1.60	5.50	24.00	
266	Short Stem Danish Ballhead	110	Round, solid, 6-7 lbs.	.10	.35	1.75	6.00	28.00	
					1 oz.				
984	Chihli (Chinese)	80	Tall celery type	.10	.30	.90	3.00		
Carrot — Treated with Arasan				Packet	1 oz.	4 oz.	1 lb.	5 lbs.	25 lbs.
326	Chantenay, Red Cored	68	Short, tapering, early	.10	.25	.75	2.50	12.00	55.00
313	Nantes Long	70	Half long, cylindrical	.10	.25	.75	2.50	12.00	55.00
337	Danvers (Supreme)	80	Half long, small top	.10	.25	.75	2.50	12.00	55.00
344	Imperator (Long Strain)	90	Long, deep red, smooth	.10	.25	.75	2.50	12.00	55.00
347	Bunching	90	Long, small top, smooth	.10	.25	.75	2.50	12.00	55.00
317	Hutchinson	100	Long, vigorous, high yielding	.10	.20	.60	2.00	8.50	40.00



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Code No.	Kind and Variety	Days to Grow	Description	Price					
Cauliflower — Treated with Semesan or Arasan				Packet	¼ oz.	1 oz.	4 oz.	1 lb.	5 lbs.
365	Danish Early Snowball.....	75	Sure-heading, early.....	.20	.75	2.00	7.00	25.00	115.00
361	Super Snowball.....	65	Deep head, for midseason.....	.20	.75	2.00	7.00	25.00	115.00
368	Holland Erfurt.....	100	Main crop.....	.20	.75	2.00	7.00	25.00	115.00
Celery — Treated with Arasan				Packet	½ oz.	1 oz.	4 oz.	1 lb.	
Green									
387	Fordhook Emperor.....	125	Short, thick, brittle.....	.10	.45	.75	2.50	9.00	
383	Tall Fordhook.....	130	Tall, full heart, highest quality.....	.10	.45	.75	2.50	9.00	
Chard — Treated with Arasan				Packet	1 oz.	4 oz.	1 lb.		
185	Fordhook Giant.....	55	Dark green, moderately savoyed.....	.10	.25	.70	2.25		
182	Lucullus.....	55	Yellow green, savoyed.....	.10	.25	.70	2.25		
Corn — Treated with Spergon				Packet	1 lb.	5 lbs.	25 lbs.	100 lbs.	
Hybrid, Yellow									
424	Sugar and Gold.....	74	High quality, yellow and white kernels, susceptible to bacterial wilt.....	.10	.50	2.00	8.50	32.00	
441	Early Golden 1.13.....	79	Excellent quality, 5½' stalk, 7" ear.....	.10	.50	2.00	8.50	32.00	
443	Marcross 13.6.....	82	5' stalk, 8" ear, 12-14 rows.....	.10	.50	2.00	8.50	32.00	
445	Carmelcross 30.13.....	84	5½' stalk, 8" ear, 12-16 rows.....	.10	.45	1.80	7.25	28.00	
447	Lee.....	93	7' stalk, 8½" ear, heavy yielding.....	.10	.40	1.80	7.50	28.00	
448	Golden Cross Bantam.....	98	Highest quality, 6½' stalk, 8" ear.....	.10	.40	1.80	7.50	28.00	
449	Ioana.....	100	High quality, drought-tolerant, 7' stalk, 8" ear.....	.10	.40	1.80	7.50	28.00	
Hybrid, White									
426	Narrow Evergreen 14 x 13	100	High quality, 7½' stalk, 8" ear.....	.10	.50	2.25	9.00	34.00	
Open Pollinated, Yellow									
431	Golden Bantam (Old Fashioned).....	90	5½' stalk, 6½" ear, 8 rows.....	.10	.30	1.25	5.50	20.00	
Cucumber — Treated with Mercuric Bichloride and Arasan				Packet	1 oz.	4 oz.	1 lb.	5 lbs.	
Pickling (Black Spine)									
403	Association Pickling.....	54	Small, for sweet pickle.....	.10	.30	.80	2.75	11.00	
407	Chicago Pickling.....	59	Large, for dill pickle.....	.10	.30	.80	2.75	11.00	
Slicing (White Spine)									
412	Straight 8.....	60	8 x 2", dark green, smooth.....	.10	.35	.90	3.00	13.00	
416	A & C Special.....	70	10 x 2½", very dark green, smooth.....	.10	.35	.90	2.75	11.00	
Eggplant — Treated with Arasan				Packet	1 oz.	4 oz.	1 lb.		
462	New Hampshire Hybrid.....	66	Oval, large, early.....	.10	.75	2.25	8.00		
465	Black Beauty.....	80	Oval, large, midseason.....	.10	.75	2.25	8.00		
Endive — Treated with Arasan				Packet	1 oz.	4 oz.	1 lb.		
471	Full Heart Batavian.....	90	Broad plain leaf, yellow green.....	.10	.25	.75	2.00		
477	Green Curled Ruffec.....	95	Broad cut leaf, bright green.....	.10	.25	.75	2.00		
Kale — Treated with Semesan or Arasan				Packet	1 oz.	4 oz.	1 lb.		
483	Blue-Scotch.....	56	Dwarf, fine curled, semi-hardy.....	.10	.35	1.35	4.00		
486	Blue-Green Siberian.....	64	Dwarf, hardy, thick leaf.....	.10	.30	.90	2.75		
Kohlrabi — Treated with Semesan or Arasan				Packet	½ oz.	4 oz.	1 lb.		
493	White Vienna.....	65	Early, light green, crisp with white flesh.....	.10	.25	1.60	5.00		
Lettuce — Treated with Spergon				Packet	1 oz.	4 oz.	1 lb.	5 lbs.	
544	Black Seeded Simpson.....	65	Loose leaf — for home garden.....	.10	.30	.90	2.50	10.00	
547	Oak Leaf.....	60	Crisp, early, attractive, high quality.....	.10	.60	1.90	—	—	
523	White Boston.....	70	Butterhead — for local markets.....	.10	.30	.90	2.50	10.00	
510	New York No. 12.....	78	Iceberg type — for 1st early crop.....	.10	.45	1.25	3.75	15.00	
512	Imperial 44.....	78	Iceberg type — for rich soils.....	.10	.45	1.25	3.75	15.00	
515	Imperial 847.....	80	Iceberg type — for main crop.....	.10	.45	1.25	3.75	15.00	
517	Great Lakes.....	83	Semi-iceberg type — for summer and fall crops.....	.10	.60	1.90	6.50	30.00	



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Code No.	Kind and Variety	Days to Grow	Description	Price				
Melon — Treated with Mercuric Bichloride and Arasan				Packet	1 oz.	4 oz.	1 lb.	5 lbs.
Muskmelon — Salmon Flesh								
562	Emerald Gem.....	85	2-3 lbs., for home garden or market....	.10	.30	.90	2.50	10.00
561	Honey Rock.....	88	4-5 lbs., for home garden or market....	.10	.30	.90	2.50	10.00
566	Hale's Best 112.....	90	4-5 lbs., good shipper, use in New England.....	.10	.30	1.00	3.50	15.00
569	Hale's Best 36.....	90	5-5½ lbs., good shipper, use in southern Pennsylvania.....	.10	.30	.90	2.50	10.00
567	Hearts of Gold.....	94	4-5 lbs., for home garden or market....	.10	.30	.90	2.50	10.00
565	Iroquois.....	98	Vigorous, high flavor, salmon flesh, replaces Benders.....	.10	.40	1.40	4.50	—
568	Pride of Wisconsin.....	105	Large, oval, heavily netted, salmon flesh, firm, high quality.....	.10	.30	1.00	3.50	15.00
Watermelon — Red Flesh, Green Rind				Packet	1 oz.	4 oz.	1 lb.	5 lbs.
571	White Mountain.....	70	3-5 lbs., for home garden in cool areas..	.10	.20	.60	2.00	8.50
574	Northern Sweet.....	80	8-10 lbs., for local markets, prolific....	.10	.20	.60	2.00	8.50
577	Kleckley's Sweet.....	100	30 lbs., for home garden and local markets	.10	.20	.60	2.00	8.50
Onion Seed — No Treatment				Packet	1 oz.	4 oz.	1 lb.	5 lbs.
Yellow								
592	Early Yellow Globe....	125	Medium size, solid, mild, stores well...	.10	.60	1.75	6.00	26.00
594	Ebenezer.....	133	Deep flat, used largely for sets.....	.10	.60	1.75	6.00	26.00
596	Yellow Globe Danvers..	140	Medium large, round, firm for storage..	.10	.60	1.75	6.00	26.00
623	Utah Valencia.....	125	For transplants, large, sweet, weighing up to 20 ounces or more.....	.10	.75	2.25	8.00	32.00
White								
606	Silverskin Wh. Portugal.	150	All purpose, dependable, bulbs deep-flat, hard, mild.....	.10	.60	1.75	6.00	26.00
Parsley — Treated with Arasan				Packet	1 oz.	4 oz.	1 lb.	5 lbs.
651	Paramount.....	120	Long stout stem, dark green, triple curled.....	.10	.15	.50	1.60	6.50
Parsnip — Treated with Arasan				Packet	1 oz.	4 oz.	1 lb.	5 lbs.
643	Model.....	150	Medium long, tapered, smooth.....	.10	.25	.60	1.90	9.00
647	Hollow Crown.....	150	Long, tapered, smooth.....	.10	.25	.60	1.90	9.00
Peas — Treated with Spergon				Packet	1 lb.	5 lbs.	25 lbs.	100 lbs.
Wrinkled Seed								
			Vine Pod Suggested Use					
681	World's Record.....	58	34" 4" pointed Early market.....	.20	.35	1.50	6.25	23.00
683	Thomas Laxton.....	62	36" 3¾" blunt Home garden and freezing.....	.20	.35	1.50	6.25	22.00
684	Laxton's Progress.....	62	18" 4½" pointed Midseason market..	.20	.35	1.50	6.25	23.00
685	Little Marvel.....	63	20" 3" blunt Home garden.....	.20	.35	1.50	6.25	22.00
686	Hundredfold.....	64	24" 4¼" pointed Midseason market..	.20	.35	1.50	6.25	23.00
687	Gilbo.....	68	26" 5" pointed Late market.....	.20	.35	1.50	6.25	22.00
692	Alderman (Dark Telephone).....	72	60" 5" pointed Late market.....	.20	.35	1.50	6.25	22.00
Edible Pod								
711	Dwarf White Sugar.....	50	28" 3" narrow, thin.....	.20	.35	1.50	6.25	23.00
716	Mammoth Melting Sugar	72	60" 4" broad, fleshy.....	.20	.35	1.50	6.25	23.00
Pepper — Treated with Arasan				Packet	½ oz.	1 oz.	¼ lb.	1 lb.
Sweet								
732	Early Giant.....	62	Crop failure					
733	Italian Sweet.....	62	Long, pointed, thick flesh.....	.10	.40	.75	2.25	7.00
735	California Wonder.....	80	Tall, bullnose, thick flesh.....	.10	.40	.75	2.25	7.00
737	World Beater.....	75	Tall, thick flesh, long, bullnose.....	.10	.35	.60	1.75	6.00
Hot								
744	Long Red Cayenne.....	75	Long, slender, very hot.....	.10	.40	.75	2.25	7.00



One variety may be ordered in smaller units to make a larger unit — at an additional charge of 2¢ per package when less than a pound and 1¢ per pound when over a pound. Varieties cannot be combined to obtain lower prices of larger units.

Orders which specify a particular size of package will take the rate of that size.

Code No.	Kind and Variety	Days to Grow	Description	Price					
Pumpkin — Treated with Mercuric Bichloride and Arasan				Packet	1 oz.	4 oz.	1 lb.	5 lbs.	25 lbs.
772	New England Pie.....	110	6-8 lbs., yellow, round .....	.10	.20	.60	1.75	7.50	32.00
775	Connecticut Field.....	120	15-25 lbs., yellow, flat round ..	.10	.20	.60	1.75	7.50	32.00
Radish — Treated with Semesan or Arasan				Packet	1 oz.	4 oz.	1 lb.	5 lbs.	25 lbs.
823	Early Scarlet Globe.....	24	Oval, small top, scarlet, market type.....	.10	.15	.50	1.50	6.50	30.00
835	Sparkler White Tip.....	26	Round, dull scarlet, 2-color skin .....	.10	.15	.50	1.50	6.50	30.00
846	White Icicle.....	27	5-6", slender, smooth, mild.....	.10	.15	.50	1.50	6.50	30.00
827	Crimson Giant.....	28	Large, globe, crimson.....	.10	.20	.60	1.75	7.00	32.00
Rutabaga — Treated with Semesan or Arasan				Packet	1 oz.	4 oz.	1 lb.	5 lbs.	25 lbs.
992	Macomber.....	80	Root ovate, rose-colored on top, flesh white.....	.10	.25	.60	1.75	7.00	—
996	Alberger.....	75	Yellow, globular, early, high quality.....	.10	.15	.35	1.00	4.50	21.00
Salsify — Treated with Arasan				Packet	1 oz.	4 oz.	1 lb.	5 lbs.	
813	Mammoth Sandwich Island	270	Roots 8" long, 1" thick, tapering, smooth, dull white.....	.10	.60	2.00	6.50	30.00	
Spinach — Treated with Arasan				Packet	4 oz.	1 lb.	5 lbs.	25 lbs.	100 lbs.
871	Reselected Bloomsdale....	36	Heavy thick leaf, early bolting, medium green color.....	.10	.25	.65	3.00	13.00	42.00
886	Virginia Blight Res't Savoy	38	Fall cutting or overwintering..	.10	.25	.65	3.00	13.00	42.00
884	Long Standing Bloomsdale	42	For 2nd early and main crop...	.10	.25	.65	3.00	13.00	42.00
	Summer Savoy.....	48	For summer crop.....				Cannot Supply		
887	Old Dominion.....	210	For overwintering, yellows res't	.10	.25	.65	3.00	13.00	42.00
870	New Zealand — No seed treatment.....	75	Slow growing, long period harvest....	Packet	1 oz.	4 oz.	1 lb.	5 lbs.	
				.10	.30	.90	3.00	12.00	
Squash				Packet	1 oz.	4 oz.	1 lb.	5 lbs.	
Summer — Bush									
782	Early Prolific Str. Neck.	50	Lemon yellow, smooth.....	.10	.25	.80	2.25	9.50	
784	Long Cocozelle.....	55	Striped green, cylindrical.....	.10	.25	.80	2.25	9.50	
Fall and Winter — Trailing Vines									
791	Warren's Essex Hybrid..	95	Red turban, 10-20 lbs.....	.10	.30	.90	2.50	11.00	
793	Buttercup.....	90	Turban, mottled green, solid, 4 lbs.....	.10	.30	.90	2.50	11.00	
778	Des Moines.....	100	Green acorn, 3-5 lbs.....	.10	.30	.90	2.50	11.00	
795	Vermont Hubbard.....	110	Green, warted, 10-20 lbs.....	.10	.30	.90	2.50	11.00	
797	Blue Hubbard.....	110	Blue, warted, 15-30 lbs.....	.10	.25	.80	2.25	9.50	
803	Golden Cushaw.....	110	Golden bulbous crookneck, 4-6 lbs.....	.10	.35	1.25	4.25	20.00	
806	Butternut.....	110	Solid neck, 4-5", 10-12" long, small bulb, tan colored.....	.10	.35	1.25	4.50	21.00	
Tomato — Treated with Arasan					Packet	½ oz.	4 oz.	1 lb.	
914	Pennheart.....	60	Dwarf vine, deep red, solid, for first early crop only.....		.10	.45	2.25	7.00	
917	Bonny Best (Shirley Strain)	68	Flattened globe, deep red, thick walled .....		.10	.45	2.25	7.00	
919	Stokesdale.....	73	Globular, medium red, vigorous, wilt res't.....		.10	.45	2.25	7.00	
923	Pritchard.....	75	Large, globular, scarlet, solid, disease res't.....		.10	.45	2.25	7.00	
929	Marglobe.....	80	Medium to large, globular, bright red, wilt res't.....		.10	.45	2.25	7.00	
935	Rutgers.....	90	Vigorous, large, flattened globe, deep scarlet, firm.....		.10	.45	2.25	7.00	
Turnip — Treated with Semesan or Arasan				Packet	1 oz.	4 oz.	1 lb.	5 lbs.	25 lbs.
972	Purple Top White Milan..	42	Top small, root flat, flesh white .....	.10	.15	.35	1.25	5.00	20.00
966	Purple Top White Globe..	55	Top large, root globular, white flesh.....	.10	.15	.35	1.25	5.00	20.00
968	Amber Globe.....	60	Top large, root semi-globular, flesh yellow.....	.10	.15	.35	1.25	5.00	20.00

Also see Rutabaga

VEGETABLE PLANTING GUIDE

For Direct Field Seeding

Kind of Vegetable	Number of Plantings	Frequency of Plantings	Period of Time Harvested	Yield Per 50 Ft. of Row	Seeds Per Pkt.	Seed Needed For 100 Ft. Per Acre	Field Planting Date	Inches Between Rows	Inches Between Plants	Inches Deep to Plant Seed
Asparagus Seed *	—	—	4 to 6 weeks	25 pounds	1/2 oz.	1/2 oz.	4/1 -5/15	20-24	4	1
Beans — Bush Snap	4 to 6	Two weeks apart	2 weeks	25 quarts	4 oz.	60-80 lbs.	5/1 -7/15	30-36	3-4	1
Beans — Pole Snap	2	May and July 1	4 weeks	2 bushels	4 oz.	15-20 lbs.	5/15-7/1	48	48 H.	1-1 1/2
Beans — Bush Lima	2	May and June 15	4 weeks	7 qts. shelled	6 oz.	1 lb.	5/15-6/15	36-40	4	1-1 1/2
Beans — Pole Lima	1	Until June 1	6 weeks	10 qts. shelled	6 oz.	8 oz.	5/15-6/1	48	48 H.	1-1 1/2
Beans — Shell	2	May 15 and June 15	2 weeks	7-10 qts. shelled	4 oz.	8 oz.	5/15-6/1	30-36	3-4	1-1 1/2
Beans — Field	1	May or June	All at once	7 qts. shelled	4 oz.	8 oz.	5/15-6/1	30-36	3-4	1-1 1/2
Beets *	4	April 15, May 10, June 15 July 15	3 weeks	1-1 1/4 bushels	1/2 oz.	1 oz.	4/15-8/1	12-18	2-3	1/2
Chinese Cabbage	1	July 15-25	3 weeks	150 pounds	1/4 oz.	1/2 oz.	7/20-8/1	24	15	1/2
Carrot	3	April, May, June, July	4 weeks	1-1 1/4 bushels	1/4 oz.	2-3 lbs.	4/15-8/1	12-15	2	1/4
Chard *	1	April to August	All Season	4 bushels	1/4 oz.	4-5 lbs.	5/1 -8/1	24	6	1/2
Corn — Sweet	6 to 8	Same variety every 10-14 days or 4 at once at 6 week intervals. Don't plant after July 10	10 days	75 ears	3 oz.	2 oz.	5/1 -6/20	30-36	10-14	1
Cucumber	2	May 15 and July 1	4 weeks	75 pounds	1/4 oz.	1/2 oz.	5/15-7/1	60	48 H.	1 1/2
Endive *	2	April, May and July	3 to 4 weeks	50 pounds	1/4 oz.	2-3 lbs.	4/15-8/1	18-24	12	1/2
Kale *	1	April to July	8 weeks	125 pounds	1/4 oz.	2-3 lbs.	6/15-8/1	18-24	18	1/2
Kohlrabi *	1	Every 3 weeks	2 weeks	30 pounds	1/8 oz.	1/4 oz.	4/1 -8/1	18	4	1/4
Lettuce — Leaf *	4 to 6	3 weeks apart	2 to 3 weeks	30 to 50 pounds	1/4 oz.	2-3 lbs.	4/10-7/15	12-15	8-10	1/4
Lettuce — Head *	4 to 6	3 weeks apart	2 to 3 weeks	30 to 50 pounds	1/8 oz.	1-2 lbs.	4/10-6/20	15-18	12-15	1/4
Muskmelon	1	Plant until June 10	3 to 4 weeks	40 to 60 fruits	1/4 oz.	2-3 lbs.	5/15-6/10	60-70	60-70 H.	1
Watermelon	1	Plant until June 10	3 to 4 weeks	20 to 30 fruits	1/4 oz.	2-3 lbs.	5/15-6/10	96	60-70 H.	1
Onion *	1	April-May	At one time	1 bushel	1/8 oz.	4-5 lbs.	4/10-5/1	18-24	3-4	1/2
Parsley *	1	April-June	All season	25 pounds	1/4 oz.	3-4 lbs.	4/10-9/1	12-15	8-10	1/4
Parsnip	1 to 2	April-May 1	Fall and Spring	1 1/2 bushel	1/4 oz.	4-5 lbs.	4/10-5/1	15-18	4-6	1/2
Peas	1	Plant 2 or 3 varieties at once from April 1 to May 1	10 days-2 weeks	1 bushel	8 oz.	90-150 lbs.	4/1 -5/1	30-40	2-3	1
Pumpkin	1	Until July 1	1 month	150 pounds	1/2 oz.	4 lbs.	5/15-6/1	96	60-70 H.	1
Radish	4 to 6	10-14 days apart in April, May and August, September	1 to 2 weeks	50 bunches	1/4 oz.	12 lbs.	4/1 -9/1	12	1	1/2
Rutabaga	1	June 15-July 15	2 weeks	1 bushel	1/8 oz.	2 lbs.	6/15-7/10	18-24	6-8	1/2
Salsify	1	April-May 15	5 months	1 bushel	1/4 oz.	7-8 lbs.	4/15-5/15	18-24	3	1/2
Spinach	4	April, May, August and September	1 to 2 weeks	1 bushel	1 oz.	8-12 lbs.	4/1 -9/15	14-18	2-4	1/2
Spinach — New Zealand ..	1	May	All season	1 bushel	1/4 oz.	3 lbs.	5/1 -6/1	48	36	1
Squash — Summer	3	May, June, July	6 to 8 weeks	60 to 75 pounds	1/4 oz.	3-4 lbs.	5/15-6/15	48	36 H.	1
Squash — Winter	1	May to June 1	1 month	150 pounds	1/4 oz.	4 lbs.	5/25-6/10	96	60-70 H.	1
Tomato *	1 to 2	Set plants May 15 to July 1. Sow seed March to May 15	6 to 8 weeks	150-175 pounds	1/8 oz.	4 oz.	5/15-6/1	36-48	24-36	1/2
Turnip	2	April and August	2 to 4 weeks	1 bushel	1/2 oz.	2-4 lbs.	4/1 -8/1	12-18	4-6	1/2

* Are easily transplanted.

H — Hills

For Transplanting

Kind of Vegetable	Number of Plantings	Period of Time Harvested	Yield Per 50 Ft. of Row	Seeds Per Pkt.	Plants From		Plants Needed Per Acre	Date to Sow Seed	Date	Field Planting	
					1 Ounce	1 Packet				Rows	Inches Between Plants
Asparagus Roots.....	—	4 to 6 weeks	25 pounds	½ oz.	800	400	5800	4/1 -5/15	4/1 -5/1	60	18
Broccoli — Early.....	2	8 weeks	40 to 50 pounds	⅓ oz.	5000	600	7200	2/15-3/15	4/1 -5/1	36	24
Broccoli — Late.....	2	8 weeks	40 to 50 pounds	⅓ oz.	4000	500	7200	6/10-6/20	7/15-7/25	36	24
Cabbage — Early.....	3	3 weeks	100 to 125 pounds	1/10 oz.	3500	350	15000	2/15-3/15	4/1 -5/1	24	15-18
Cabbage — Late.....	3	3 weeks	100 to 125 pounds	1/10 oz.	2000	200	7000	4/25-5/10	6/15-7/1	30-36	24
Cauliflower — Early.....	2	3 weeks	60 to 90 pounds	1/20 oz.	5000	250	12000	2/25-3/25	4/10-5/1	30	18
Cauliflower — Late.....	2	3 weeks	60 to 90 pounds	1/20 oz.	3000	150	9000	5/10-6/20	7/1 -7/25	30-36	24
Celery — Early.....	2	3 weeks	100 stalks	1/10 oz.	15000	1500	40000	2/15-3/10	5/1 -5/15	24-48	4-6
Celery — Late.....	2	3 weeks	100 stalks	1/10 oz.	10000	1000	35000	4/25-5/15	7/1 -7/15	30-48	4-6
Eggplant.....	1	6 weeks	125 fruits	⅓ oz.	2000	250	7000	3/10-3/25	5/20-6/10	36-40	24-30
Lettuce — Leaf.....	4 to 6	2 to 3 weeks	30 to 50 pounds	⅓ oz.	4000	1000	60000	2/15-2/25	4/1 on	12	8-10
Lettuce — Head.....	4 to 6	2 to 3 weeks	30 to 50 pounds	⅓ oz.	4000	500	30000	2/15-2/25	4/1 -5/1	15-18	12-15
Muskmelon.....	1	3 to 4 weeks	40 to 60 fruits	⅓ oz.	800	200	1500	4/15-4/25	6/1 -6/25	60-70	60-70
Pepper.....	1	6 to 8 weeks	150 fruits	⅓ oz.	2000	250	10000	3/15-3/25	5/20-6/10	30	20
Tomato.....	1 to 2	6 to 8 weeks	150-175 pounds	⅓ oz.	3000	300	4000	3/1 -3/25	5/15-6/10	36-48	24-40
Watermelon.....	1	3 to 4 weeks	20 to 30 fruits	⅓ oz.	150	35	1100	4/15-4/25	6/1 -6/15	96	60-70

★ These *Golden Cushaw* squash weigh 4 to 5 pounds, can be kept all winter, are highly productive and excellent quality. Flesh is rich orange, dry and sweet. Seed cavity in bulbous end is small.



★ At left are *Imperator* carrots, suitable both for bunching and storage. They grow 7 to 8½" long. At right are *Chantenay* carrots, very productive and excellent for early bunching. About 5½" long.



Tips on How to Make Garden Soil Produce Food

by E. K. Walrath

Ed Walrath has charge of the Eastern States Soils Laboratory and knows his onions about plant food.

WE ARE WHAT we eat — so the farm garden should have first priority on land, labor, supplies, and gray matter. Not alone how much, but how good, should be the rule in vegetable gardening, even if the cash crops, the forage and livestock get less attention. This will assure that the best crop (farm folks) fares the best!

Soils for the farm garden should be so productive, so deep, so rich in humus, so well supplied with lime and minerals, that they could produce a year's food without any fertilizer if it had to be done. How few are that fertile!

This preface is a plea for deliberate planning of site, fertilization and management of what can be the most valuable land on the farm — the farm garden.

How is the soil and air drainage? One kind of insurance against the weather is a deep, well-drained soil, located so the cold air of early frosts will drain to lower land. No pockets, please, for water or air, no hardpans, no gravel underneath in the second farm — the subsoil. If the soil below plow depth is mottled and streaked, or so open that rainfall can go through about as fast as it falls, get another site. For a family garden, select the best soil.

How is the calcium? The quality of

the farm family's bones and teeth and the efficiency of the homegrown and purchased fertilizer used will depend very much on there being enough calcium in the soils and plants. Without enough calcium certain plants may develop an abnormal composition; for example, spinach with a low calcium content may be high in oxalic acid. The heavy rainfall of 1945 caused lots of calcium to leach out of our soils, conservatively estimated at equivalent to 500 pounds of ground limestone per acre.

Don't guess — test! As soon as the frost is out of the ground have your garden soils, topsoil and subsoil tested for lime requirements. Get these samples to your county agent, experiment station or your Eastern States soils laboratory before the spring rush begins. Unless the subsoil is well supplied with calcium, plow down half of the lime. It can go on with the manure.

If subsoil acidity is less than pH 5.0, mix two parts of lime and one part of Superphosphate, and put this mixture on the plow sole of each furrow at the rate of one-and-one-half tons per acre, or seven pounds per 100 feet of 12-inch furrow. Then after plowing, lime as recommended for the topsoil.

If it is found by test that the garden

soils are overlimed, and many are in relation to other nutrients, then follow recommendations of the test report.

What fertilizer for the farm garden? Home-produced fertilizer from the barnyard and sods should be the basis of the farm garden fertilizer to maintain humus and furnish nutrients. Often, however, an unbalanced condition results from using too much manure; and this is especially true with poultry manure. Too much nitrogen in relation to phosphorus and potash causes a soft, rank type of leaf growth at the expense of fruit and root. Poultry manure from the pit or roosts is similar in composition and values to organic fertilizers, such as cottonseed meal. So as not to apply too much, equal amounts of such poultry manure may well be loaded in the spreaders with alternate layers of stable manure. Spread the mixed manure at not more than eight tons per acre, or four to six tons of poultry manure, or 15 tons of stable manure.

To balance the low phosphoric acid content of manures, reinforce the stable manure with 20% *Superphosphate* at a pound per day in the stable. For clear poultry or mixed poultry and stable manures, a good practice is to apply 150 to 200 pounds of *Eastern States 0-20-20*, or the equivalent in *Superphosphate* and *Muriate of Potash* evenly over each ton of manure in the spreader. Those interested in more detailed information on the use of poultry manure should get a copy of Pennsylvania Experiment Station Bulletin No. 469, "Production, Composition and Value of Poultry Manure."

All poultry manure should be worked into the soil well ahead of seeding or transplanting. Composted or rotted manure may well be spread after plowing.

What chemical fertilizer for the farm garden? Regular farm crop fertilizers are entirely satisfactory for farm gardens to supplement the fertility released by sods, manure and weathering.

This general program is recommended:

Where reinforced manure is not used, broadcast and plow down 8-24-8 or 5-20-10 at 500 pounds per

VEGETABLE SEED ORDER

to

EASTERN STATES FARMERS' EXCHANGE
WEST SPRINGFIELD, MASSACHUSETTS

V

SEND PAYMENT WITH ORDER TO AVOID C.O.D. CHARGES

Date of Order _____

Name _____ (PLEASE PRINT)

RFD or Street _____

Post-Office _____ State _____

Express or
Freight Office _____ State _____

Note: On "Add-to-Draft" orders only! Representative sign below if he approves

"Add-to-Draft" terms:

Representative's Signature _____

Order only varieties and sizes as listed in catalogue.

This order form will be returned to you when your order is shipped. If you have occasion to write about this order, you must return this form with your letter.

This order is given and accepted in accordance with conditions printed on the back hereof.

THIS FORM MUST BE
RETURNED WITH YOUR
LETTER IF YOU WRITE
ABOUT THIS ORDER.

Quantity	Code Numbers	Column 1				Quantity	Code Numbers	Column 2				
		Indicate Variety Desired When More than One is listed in the Catalogue	✓	Unit Price	Value			Indicate Variety Desired When More than One is listed in the Catalogue	✓	Unit Price	Value	
		ASPARAGUS SEED				Brought forward from Column 1						
		BEAN						CARROT				
								CELERY				
								CHARD				
								CORN - SWEET				
		BEET										
		BROCCOLI										
		CABBAGE										
		CAULIFLOWER										
Total of Column 1						Total of Columns 1 and 2						

Column 3						Column 4					
Quantity	Code Numbers	Indicate Variety Desired When More than One is listed in the Catalogue	✓	Unit Price	Value	Quantity	Code Numbers	Indicate Variety Desired When More than One is listed in the Catalogue	✓	Unit Price	Value
Brought forward from Column 2						Brought forward from Column 3					
		EGGPLANT						PEPPER			
		ENDIVE									
		KALE						PUMPKIN			
		KOHLRABI						RADISH			
		LETTUCE									
								RUTABAGA			
		MUSKMELON						SPINACH			
		WATERMELON						SQUASH			
		ONION									
		PARSLEY						TOMATO			
		PARSNIP									
		PEA						TURNIP			
Total of Columns 1, 2 and 3						Total of entire order					

CONDITIONS:

This order is subject to acceptance by the West Springfield office of the Eastern States Farmers' Exchange and after such acceptance is further subject to cancellation or prorating by the Exchange in event of seed crop failures, strikes, fires, embargoes or other contingencies beyond the control of the Exchange. It is further subject to change by the buyer in event of necessary change in his cropping plans upon presentation of satisfactory explanation in writing to the Exchange office in West Springfield and if desired kinds are available.

The member agrees that shipment will be made and accepted under the following condition:

The Eastern States Farmers' Exchange has exercised all reasonable care and precautions in the production, preparation and distribution of this seed, but cannot be responsible for the operation of Nature's laws, nor control the conditions under which it is later stored, handled, planted or grown; so therefore gives no warranty express or implied concerning the description, quality, productiveness or condition of the resulting crop and shall in no case be liable for an amount greater than the amount actually paid for the seed. Statements of germination, description and other information are given as a report of our tests, observations and advice.

Orders cannot be accepted or filled on any other terms.

Send payment with order and avoid C.O.D. Charges

ASSEMBLED BY _____

CHECKED BY _____

DATE SHIPPED _____

THIS ORIGINAL ORDER WILL BE RETURNED TO YOU.

acre on heavy soils and 8-16-16 on sandy soils. After plowing, harrow in 8-16-16 at the same rate. If mostly leafy crops are to be grown on an area, 10-10-10 may be a better choice. If 8-16-16 is used, later side-dressings of nitrogen materials can be made after the last cultivation, if necessary, to offset unusual leaching losses of nitrogen and to encourage more vigorous leaf growth.

For tomatoes, keep down the nitrogen early, especially for the Rutgers variety, but feed well with side-dressings of 8-16-16 after the crop is set to prevent demands of maturing fruit from robbing the leaves — since under such conditions they cannot

do their work and will therefore drop off.

For the perennial crops of rhubarb and asparagus, use 8-16-16 at 600 to 700 pounds per acre before and after the cutting season.

Build up the humus with sods and cover crops. Now is a good time to plan on building up the humus supply of the farm garden.

Cover crops of fall-sown grains or rye grass, with or without manure, will not improve the farm garden soil so much as a good sod. Both sods and cover crops furnish none too much organic material to make more humus for the farm garden. Why not double the size of the garden site

and have two halves in a two-year rotation with a well-fertilized sod always in preparation for the next year's garden? If a shock treatment is needed to get the upbuilding quickly under way, plant a crop of drilled or thickly-planted hybrid field corn, with a double dose of manure and fertilizer under it and then plow it down with extra nitrogen. If followed by a sod crop or a full year of rye grass, this treatment will really produce organic matter as proved this year and last at the Eastern States Plant Industry Project at Feeding Hills, Massachusetts. At Westbrook Laboratory farms, too, measurements of *Illinois 448* hybrid



silage corn on a well-manured sod, with 1000 pounds of 10-10-10 plowed down and row fertilization for a starter, produced this year 13 tons of dry matter per acre. Even half this amount of humus-forming material put in circulation in any garden soil will be a big step forward toward plenty of high-quality eating.

When farm garden soils are not very productive and must be used until they can be improved, concentrate on those crops that are less sensitive to fertility levels such as beans, carrots, late sweet corn, parsnips, pumpkins, late squash, tomatoes and turnips. Favor the leafy or short-season crops that have a high fertility requirement by harrowing in some well-rotted manure or compost, in addition to the regular manuring and fertilization. They will repay the effort.



to provide. He used an *Eastern States Ladino* seeding in his two acres of hog pasture. The animals thrived on this type of management. Mr. Schofer is owner of a two-star, Registry of Merit brood sow. Pictured here are some of the Schofer Hampshires in a corner of the lush, two-acre pasture piece.



Mr. Schofer's one star Registry of Merit brood sow at left and a two star brood sow at the right. Eastern States feeds are used on this farm.



Shoats out of "Mercury's Headlight" feeding on *Eastern States Ladino* pasture at Robert E. Schofer's of Sinking Spring, Pennsylvania.

☆ **HAMPSHIRE HOGS** like *Ladino* clover pasture, declares farm owner Robert E. Schofer of Sinking Spring, Pennsylvania. Mr. Schofer followed the Eastern States program in feeding his purebred animals and added an important feeding practice which many other hog raisers failed

☆ **STRAW-IN-THE-WIND** — This fact may be a straw in the wind for you to note carefully. The dressing plant of a New England egg auction during November had a feast of poultry and a famine of buyers. They had been supplying a large chain of super markets with dressed poultry

for some time. In one week 26 of these super markets wanted no poultry because their customers were all buying red meat. In planning for the future poultrymen should remember that there is still a generous supply of red meat left in this country on the hoof which eventually will find its way to market.

POULTRY SHOW — Paul Ives, who is chairman of the committee sponsoring the 98th Boston Poultry Show, reminds us that the dates are January 16 through 20 in the Boston Garden. This mecca of poultry enthusiasts again promises a display geared to the commercially important trends in the poultry business, as well as to the showmanship standards of the fanciers.

☆ **TWO LITTERS** of purebred Durocs owned by Howard Geyer of Harbeson, Delaware, are eligible to compete in the National Ton-Litter contest. Both litters weighed over a ton at 180 days. These sows were fed *Eastern States Pig Starter and Breeder* and *Calving Ration* during the gestation period. After farrowing, the sows and pigs were fed *Pig Starter and Breeder* and corn until the pigs weighed around 100 pounds after which they were fed *Pork Builder* and corn. They were self-fed and ran on a very good pasture of soybeans, corn and rape.

☆ **GOOD MANAGEMENT** and close observance of recommended feeding practices have paid off for Morris Fearnley of Greene, Connecticut, a breeder of White Rocks. During the 1945 breeding season, egg fertility, except for the taper-off part of the season, was 95 percent and hatches below 80 percent did not occur.

☆ **USDA Secretary Anderson** will be one of the principal speakers at the annual meeting of the National Council in Chicago, January 9 to 11. Eastern States will be represented at the gathering.



☆ **MEMBERS WHO** take delivery of Eastern States mixed fertilizer in January and February reduce their plant food costs and make profitable use of storage space on the farm. Their fertilizer will be on hand when they are ready for it.

☆ **A LIMITED SUPPLY** of high-purity variegated alfalfa seed has been secured for shipment in 1946. This seed contains no measurable amounts of sweet clover or other crop seeds. Orders for this seed will be confirmed as received until it is all on order. Aggressive action is meanwhile being taken to secure additional quantities of similar quality seed.

Several thousand pounds of another lot of variegated alfalfa which does contain sweet clover seed, not in ex-

cess of two percent, is also available. The cost of this is \$8.40 per hundred-weight less than the seed without sweet clover, and is an outstanding value for forage production.

The sweet clover will be much in evidence the first spring after planting, but by low and slightly delayed mowing it can be eliminated from later harvests.

Hay-Pasture Mixtures No. 3 and No. 4 containing 30 percent and 75 percent respectively of high-purity variegated alfalfa are also available in appreciable quantities.

☆ **SOYBEAN SEED** is now available in 50-pound bags as well as in bags of 100 pounds each. Members in certain areas have requested this smaller size for some time but only recently have labor supply and shipping facilities been adequate to make this extension in package sizes possible.

Both size bags will be priced at the same amount per hundredweight.

☆ **KEEP IT DRY** is the first and most important rule for storing fertilizer. Remember that chemicals absorb moisture easily. Keep fertilizer off concrete floors, away from walls and under a tight roof. Also avoid piling on scaffolds or floor directly over stables where livestock are kept. Animals breathe out much moisture.

☆ **SUPERPHOSPHATE** supplies stored on the farm can well be increased — beginning now. Have enough on hand for the stables and poultry houses all winter plus enough more to take care of early pasture topdressing and early seedings.

☆ **IT TAKES LESS** purchased fertilizer to maintain farm fertility when manure applications are light and frequent. Heavy per-acre-spreadings mean waste of plant food. Reinforce all farm manure with *Eastern States 20% Superphosphate*. Loosen up the working parts of the manure spreader so that it can be set for lighter rates per acre.

☆ **BORAX CAN KILL** as well as cure! Use it as a "prescription" treatment — and only when it is a known soil deficiency and for crops that are known to benefit from it.

EASTERN STATES *Used* BAGS

Eastern States Feed Bags are now leased directly to members at 15.5 cents each. Thus the bags are constantly the property of the Eastern States Farmers' Exchange. Bags no longer serviceable in transporting Eastern States feed will be released to the commercial bag market and members will receive the market price.

Your local representative or regional warehouse will accept your bags and return them to a bag house authorized to grade and recondition Eastern States bags. You may return as few as 10 in one bundle if you are a small user. Fifty bags in a bundle is preferred whenever possible. Tie bundles securely with three ropes or ties.

When shipping through your representative or warehouse, tag bundles plainly with the name of your representative (or warehouse) on the front of the tag; put your name on the back, together with the number of bags and bundles. Get shipping tags from your representative or warehouse.


These are the only authorized Eastern States bag houses:

CARL BURWICK & COMPANY
314-324 Grote St.
Buffalo, N. Y.

A. BRODER BAG COMPANY
28-52 Wason St.
Buffalo 10, N. Y.

GENERAL BAG & BURLAP COMPANY
1617-25 North Second St.
Philadelphia, Penn.

CARL BURWICK & COMPANY
Thomas Bldg.
Worcester, Mass.

A woman with a joyful expression is shown in a lush green field, likely a bean field. She is wearing a dark and light plaid button-down shirt with the sleeves rolled up, and a patterned headscarf tied around her head. She is holding a small bunch of green beans in her hands, and a wooden basket filled with harvested beans sits on the ground nearby. The background is a dense field of green bean plants with large, heart-shaped leaves.

For anyone interested in garden lore, the story of Eastern States work in selecting, testing and breeding to provide better seeds for farmers makes interesting reading.

Lots of Things Are Done to Make Your Seeds Better

by O. H. Pearson

*Dr. Pearson, nationally known plant breeder,
heads the Eastern States Plant Industry Project.*

AS IN THE PAST, the investigational program of the Eastern States Plant Industry Project for 1946 will include checking of distribution lots of vegetable seeds and suitable recommendations made for distribution or disposal. Quality of the great majority of distribution seed lots tested is fully up to Eastern States standards and only an occasional lot is rejected. Last year only six percent of the lots received at the Buffalo seed house could be criticized on uniformity, type, or presence of mixtures. These lots, of course, were the crops produced concurrently with the much expanded seed program of lend-lease in 1944.

The survey of new sources and varieties must continue. Much developmental work by state and private agencies has been carried on in spite of the war effort, and we expect that a number of new things will be released for trial and introduction very soon by the several state experiment stations. New peppers, lettuce and sweet corn from Pennsylvania, melons, pop corn and lima beans from New Hampshire, rutabagas and tomatoes from Massachusetts, cabbage and onions from New York, cucumbers from Maine, and, of course, sweet corn from Connecticut are very near introduction, and must be compared and evaluated for a place in the Eastern States program. Cordial relations are maintained with all these agencies, and we are given opportunity to test these new varieties and strains as soon as they reach a satisfactory degree of purity.

Production of seed has been a mi-

nor activity at the Feeding Hills Plant Industry Project for a number of years, often because the quantity needed for our distribution was too small to interest commercial growers. It has ceased to be necessary to do this, because the personal contacts developed by employees in the seed production department with specialty growers will make possible production of small lots with a greater degree of certainty and undoubtedly at a considerable saving. The follow-up contacts in the production areas three or four times each year are invaluable in keeping these growers alive to our interests, and in keeping us informed of new developments in that area. Land and time that have been devoted to seed production at Feeding Hills will be devoted to production of more items of stock seed, which will tend to add character to the Eastern States vegetable seed program.

Cooperative work is in progress with the Washington Cooperative Farmers' Association in the production of stock seed of *Golden Acre* cabbage. Approximately 300 plants were selected for type, potted, and held outdoors in late fall to be sure of sufficient chilling and then moved into the greenhouse for seed production late this winter. This seed will be shared by Eastern States and the Washington group, the costs being likewise shared. Cost of stock seed on an item like cabbage is not important in the cost of production of the seed crop, and the method just outlined maintains adaptation to eastern conditions, which is fully as impor-

tant in cabbage as it is in corn or tomatoes. This type of joint action should be encouraged, and the results will be as valuable for Eastern States as for the cooperating group.

Where new varieties of greater usefulness appear to be needed, an attempt is being made to develop them, either independently or in conjunction with a state agency. A short runner squash of the Butternut type is nearly ready to be released, in which, although the quality is not as good as the best, the size of plant has been cut down, the leaf area has not been decreased, and the number of fruits set has been increased. Two new carrot strains are in production now that are well colored, vigorous, and productive. A highly colored shell bean is in the process of increase, and a new line of Blue Hubbard squash is being built up. Blueprints for an insect-resistant type of squash, and for a higher quality, cold-resistant productive type of late cabbage have been drawn up and preliminary steps taken to build the variety.

Field corn investigations have been carried on for 10 years, with the last six closely coordinated with the program of the Connecticut Experiment Station through the fellowship maintained by the Eastern States at that station.

Seven years ago a number of local varieties were collected from Eastern States territory by fieldmen, which were turned over to Connecticut for development of inbreds. Several promising lines from Golden Queen, Long's Champion, Patton's Leaming, Early Butler, and several New England flints have been isolated as well as a number of lines out of Sure Crop, which are being tested and elimination of the unproductive families will result. These will go into further competitive tests in combinations, and we expect to have hybrids with better adaptation to the East in the near future.

Potentialities of the Frankford plot for isolation of disease-resistant lines are appreciated, and a much more extensive use of it is planned for the future. Stalk rot was serious in the southern territory this year, reaching epidemic proportions in some localities, but it is always severe in southern Delaware and valuable material can be secured from these.

New material from Golden Queen and a local Delaware line has been collected, and an intensive breeding and selection program is planned. With the extensive program in effect in Pennsylvania during the last two years, the regional plots carried by Eastern States in that state have been discontinued as a separate endeavor, but material has been furnished to Dr. Huber, and we are cooperating in furnishing assistance and contacts for him in his work. In the next few years we are planning to make extensive use of this southern test plot,

including in it both our own material, which is being developed jointly with Dr. Jones at Connecticut, and the Pennsylvania lines which Dr. Huber is selecting. I am convinced that an intensive program of this sort, coupled with winter increases in the far South, will result in much improved corn hybrids for use in our southern territory.

During the past years we have had several joint programs with the Farm Supply Service, and this type of work should increase, particularly since this department now has a specialist

in pest control. Usage of many of the spray and dust materials now being offered will need more follow-up studies in method of application and equipment than usually are available from experiment station results, and many of the materials need to be compared closely while a program is being built. We feel that a great deal can be accomplished by joint action. Herbicides are still being studied, and the interest that has developed around their use, and potential use, appear to justify continued investigation.

★ One of the good things about farm gardening is that it brings to your table new "treats" and new sources of health-building nutrients . . . Swiss chard, for instance, can be prepared temptingly better than some of the commoner items.



FARMERS' SIGNPOST



by Whitney Tharin

Except for poultry, eggs and milk, the Department of Agriculture is calling for another year of full production in 1946. Sharp reductions are asked in the number of chickens and turkeys raised on farms, and eggs. The suggested milk goal of 120,500,000,000 pounds compares with the all-time record of 123,000,000,000 estimated to have been produced in 1945. The 1946 egg production goal of 3,910,000,000 dozen is 85 percent of 1945's 4,577,000,000 dozen. The recommended goal for chickens in 1946 is 680,000,000 head, or 83 percent of the 821,300,000 raised in 1945. A turkey goal of 39,700,000 for 1946 is 90 percent of the estimated 44,150,000 raised in 1945. Goals for other crops, including feed grains, are all at or slightly above the estimated 1945 production.

The New Year is expected to usher in a period when long-range farm legislation will again come to the forefront in Congress. The current move to modify the parity formula is a step in this direction. Agricultural economists are already at work on possible future programs for agriculture. Some take a "high" road — controlled production and high prices — while some take a "low" road — no forced production controls with farm commodities seeking their market level. Should prices drop too low the government would step in and make direct payments to boost farm income. Still others are taking an in-between road, such as the two-price system — one price for that

part of a crop consumed domestically, and the world price for that part sold in export markets or for non-competitive domestic use.

National Farmers Union has become a bed-fellow of the American Farm Bureau Federation in supporting legislation proposed by AFBF for a government-subsidized fertilizer program. President James G. Patton of the Union, in a letter to AFBF President Edward A. O'Neal, says the AFBF bills introduced by Senators Hill and Bankhead, Alabama Democrats, and Representative John W. Flannagan (D., Va.), are very similar to legislation previously proposed by NFU, and therefore would be supported by FU. The bills (S-882 and H.R. 2922), are being bitterly opposed by most farmer cooperatives, by the National Fertilizer Association, and by the American Plant Food Council on the grounds that they are designed to put the government even further into the fertilizer business in competition with private interests. The Farmers Union endorsement came as a surprise as the two organizations have long been at loggerheads on virtually all agricultural policies.

Sponsors of legislation to consolidate USDA's Farm Credit Administration and Farm Security Administration into an independent governmental agency are going ahead with their plans to win Congressional approval despite opposition from Secretary of Agriculture Clinton P. Anderson. The credit bill has been amended to create an additional as-

sistant secretary of agriculture, who would be ex-officio member of the independent credit board which the measure would set up, but this did not appease Anderson. Anderson, in opposing an independent credit agency, had proposed that he be given an additional secretary to help him administer agricultural credit facilities, but with these facilities remaining with USDA. The proposal for a separate credit agency has the approval of the National Council of Farmer Cooperatives.

The Food and Agriculture Organization of the United Nations has been quietly going ahead with its job since the international conference in Quebec in October. Much of the initial work is being done by committees made up of experts from the countries represented in the organization. Committees have already been appointed to advise on forestry and fisheries. A third will be named shortly to draw up a world balance sheet of food supplies and food needs. This would show, by countries, the production and supplies of major agricultural commodities, the trade in these commodities, the per capita consumption and the amounts needed in deficit areas. Gove Hambidge, who gained distinction as editor of USDA's widely known "Yearbook of Agriculture" has been appointed FAO's direction of information.

The 1946 potato support program differs in two major details from the one in effect the past few years. No advance announcement will be made of support prices for grades below U. S. No. 1. Instead, USDA says supports for lower grades will be at "such prices as will be necessary to carry out price support obligations." The Department may prescribe conditions governing disposition of the lower grades which would have to be met before No. 1 grade potatoes would be eligible for support. The second difference is that the announced support prices will be "base prices, effective at a stage of distribution described as in bulk, loaded on truck at farmer's gate." Previously, supports were at the f.o.b. level. Late crop potatoes will be supported by loans, supplemented where necessary and practicable by diversion to export, industrial and feed outlets.



THIS MAGAZINE is published monthly by the Eastern States Farmers' Exchange, headquarters: West Springfield, Mass. It is distributed free to members of this cooperative purchasing association. The purpose of the *Eastern States Cooperator* is to keep members informed about the progress of their organization — to help make better farming easier to accomplish by having up-to-date information available regularly. For anyone living outside Eastern States territory and those within the territory but not able to participate in the association's purchasing program, there is a subscription price of \$1.00 a year.

There are 100,000 members and patrons in the Eastern States Farmers' Exchange located in New England, Pennsylvania, Delaware, and Maryland. The members are the owners of the Exchange, which serves as the purchasing department of their farms. They control its operation through their annual meeting which every member has the right to attend. Each member has one vote.

Members select the Exchange's board of directors at the annual meeting. Through its executive committee, the board of directors carries out its responsibilities to the membership. The management, responsible to the executive committee, selects and purchases the commodities handled by the association.

Eastern States commodities are processed in the Exchange's own plants — shipped in carloads — usually delivered to members from the car door — and paid for on a cash basis; factors that enable the Exchange's local representative to serve 1000 communities economically.

Vol. 22 No. 1

Reconversion

THE TREMENDOUS task of reconversion is not being accomplished as rapidly as had been hoped. Farmers must exercise much self-control and good judgment to be squeezed as little as possible by this delay.

While waiting for industrial production and distribution to get into full swing, farmers should refrain from buying any goods and services they can get along without which are high in price due to short supply. Such items, which all farmers need to a greater or less extent include: machinery and automobiles, fencing, building materials of most sorts and many household supplies. Careful shopping, of course, will disclose exceptions in these listings — some things being available here and there in quantity even now and at attractive prices. Other things critically needed but high in price can be bought by going without other things not so necessary. All this is in harmony with our private enterprise tradition.

Farmers must also refrain from expecting more supplies which, though attractive in price, are still in short supply due to inability to expand production facilities during wartime. The fertilizer industry is a conspicuous example of this situation.

While imports of foreign potash were cut off by the war, and imports are now impossible due to the ravages of war, demand for potash has increased and is now at an all-time high. Although fertilizer usage has reached a volume never required prewar, the fertilizer industry, private and cooperative, has been unable to expand facilities sufficiently since the war started. Such expansion is, however, now in progress.

Even commodities which farmers produce for each other are in some instances short due to the demands made on farmers during the war years. Grass seed is short as are other sorts of seed.

Feed supplies for the period ending next fall are not sufficient to carry present animal and poultry numbers at current levels of feeding. Ceiling prices

on feed materials are low enough in comparison to prices farmers are receiving for animal and poultry products to cause a greater-than-normal proportion of such materials to be fed in areas of their production. Farmers in "feed importing" areas are also continuing to feed heavier than prewar.

How can farmers best meet this situation? By being discriminating buyers, picking up the things they need most and holding back on the things they can spare until they are available and by keeping their operations consistent with supplies. To these conditions farmers themselves must adjust their operations.

Soil Mining

WE HAVE been maintaining our nation's living standards in part by mining our basic soil fertility. The process started on the eastern seaboard generations ago and then moved west. Slow in the early stages, it has been speeded up with the advent of new farm machinery so that fewer and fewer farmers have been able to support more and larger cities by being able to mine faster.

Continuing to mine this most basic material resource can only lead to disaster — for the farmer as well as for those who depend upon him for food and clothing. History shows that it has happened before in other parts of the world. *It can happen here!*

To reverse this trend requires employment of legume and grass seeds, lime and fertilizer to re-vitalized soils and restore nutrients. Fertilizer alone will not do the job. It requires putting fields into perennial sod crop production more often and for longer periods, being liberal with fertilizer applications on those sods.

Between-season seedings of green manure and cover crops are going only part of the way to maintain basic fertility; seldom, if ever, are they adequate to fully offset the drains cultivated crops make on basic fertility and productivity. There is too little time for rest and refitting, little opportunity to return the nutrients cash cropping and soil drainage have removed.

Farmers' Money

WHEN farmer dollars are important enough for commercial distributors to go after with full-size highway poster advertising, they are also important enough for the farmer to shepherd wisely by spending them with his own supply purchasing cooperative. In western Pennsylvania you can see such poster advertising placed there by a hybrid seed corn company. As a class, farmers are among the largest spenders for supplies.

Feed Outlook

WITH many eastern farming communities still getting feed on a hand-to-mouth basis, there's reason to wonder why the relatively big 1945 grain crops have not changed this situation completely. From Purdue University in Indiana comes a bit of information which sheds some light on the subject. It seems the university ran some swine feeding tests which indicate that under present price relationships Corn Belt farmers can produce pork out of feeds at hand at a cost of \$7.08 to \$8 a hundredweight. And the top Chicago price for pork is \$14.85 — making good enough reason to keep feed on the farms out there and convert it to pork.



The economics of this situation are partly real and partly OPA. If the program runs long enough it will end up with its feet well off the ground and there will be another emergency screeching to be fixed up. Meanwhile eastern farmers will have anxious days ahead trying to make feed supplies match the way they ought to farm.

OFFICIAL CALL AND NOTICE

TWENTY-EIGHTH ANNUAL MEETING OF THE
EASTERN STATES FARMERS' EXCHANGE

To the members of the
Eastern States Farmers' Exchange:

Notice is hereby given that the 1946 annual meeting of members of Eastern States Farmers' Exchange will, in accordance with the by-laws, be held on Tuesday, February 26, 1946, in the High School of Commerce, Springfield, Hampden County, Massachusetts, at the hour of 10:00 A.M. for the purpose of electing directors, a clerk, and a treasurer, in accordance with the provisions of the by-laws, and to transact such other business as may properly come before the meeting, including the following:

To consider and vote upon the recommendations of the Board of Directors, contained in a resolution adopted February 27, 1945, for simplification of the corporate structure of the Eastern States Farmers' Exchange through the dissolution of Eastern States Cooperative Milling Corporation, Buffalo, New York, and the transfer of all its assets, liabilities and business to the Eastern States Farmers' Exchange. Steps to be taken in connection with this Simplification Plan, which will come before the meeting are:

1. To amend the Agreement of Association and Articles of Organization of the Eastern States Farmers' Exchange in the following particulars:

(a) To add the word "Incorporated" to the corporate name of the Eastern States Farmers' Exchange.

(b) To add to the statement of purposes and powers to define more fully the same.

(c) To provide that membership of the Eastern States Farmers' Exchange shall be composed exclusively of farmers.

2. To authorize the qualification of the Eastern States Farmers' Exchange to do business in the State of New York.

3. To take the necessary steps, in conjunction with the directors and stockholders of Eastern States Cooperative Milling Corporation, to dissolve that corporation according to the laws of New York and to transfer its assets, liabilities and business to the Eastern States Farmers' Exchange.

4. To authorize the officers, employees and agents of the Eastern States Farmers' Exchange, to take such steps as may be necessary to put the proposed Simplification Plan into effect.

If the foregoing Simplification Plan is approved, the meeting will be asked to vote to amend Article I of the by-laws to read:

"This association shall be known as the Eastern States Farmers' Exchange, Incorporated."

QUENTIN REYNOLDS, Clerk

February 1, 1946

OFFICERS

President, Raymond Taylor, Newtown, Pa.; Vice-President and Chairman of Executive Committee, C. Marsden Bacon, Middletown, Ct.; Vice-Presidents, George Fuller, Deerfield, Mass.; Fred J. Nutter, Corinna, Me.; Treasurer, Harry L. Lane, Springfield, Mass.; Clerk and General Manager, Quentin Reynolds, Springfield, Mass.

DIRECTORS

Connecticut — C. Marsden Bacon, Sr., Middletown; S. McLean Buckingham, Watertown; Robert E. Foote, Andover; Tudor F. Holcomb, West Granby; Louis S. Moseley, Hampton; Edward P. Rowland, Seymour; Walter C. Wood, New Canaan.

Delaware — H. C. Milliken, Middletown; Alden P. Short, Georgetown.

Maine — Frank B. Day, Winthrop; George P. Findlen, Fort Fairfield; Frank W. Lord, Kezar Falls; Fred J. Nutter, Corinna; Carl R. Smith, Exeter.

Maryland — William H. Holloway, Snow Hill.

Massachusetts — Charles S. Bliss, Attleboro; Clark P. Comstock, Housatonic; Jonathan Davis, Sterling Junction; William M. Fiske, Easthampton; George Fuller, Deerfield; Alfred G. Lunn, Halifax; Horace A. Moses, West Springfield; E. B. Parmenter, Franklin; Curtis Peckham, Taunton; Floyd Verrill, Concord.

New Hampshire — J. Ralph Graham, Boscaawen; W. Thurston Whittle, Milford.

Pennsylvania — C. G. Bucher, Lebanon; Wilmer Claar, Queen; J. Howard Cliffe, Ivyland; Noah Hershey, Parkesburg; Ben W. Jacobs, Waynesburg; Frank E. McCoy, Emlenton; Floyd M. Merkel, Hamburg; John S. Miller, Somerset; James S. Nicholson, Muncy; William H. Oaks, Greencastle; Clark Pollock, Marion Center; Francis Reiter, Mars; Reuben H. Ringer, Schnecksville; Joseph W. Sieber, McAlisterville; H. H. Snively, Willow Street; Harry W. Stuart, Newville; Raymond S. Taylor, Newtown; M. W. Wert, Rebersburg; Mark N. Witmer, Dalmatia.

Rhode Island — J. W. S. Lillibridge, East Greenwich.

Vermont — Henry G. Chamberlin, West Brattleboro; Park H. Newton, St. Albans; S. Seeley Reynolds, Sr., Middlebury; A. Leroy Smith, Barre.



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Exchange

THE HOMEMAKER'S NOTEBOOK

Home Grown Vitamins

EDITED BY FRIEDA SLOOP



Oak Leaf lettuce — a base for any salad.

PLANNED THE Eastern States way, a good garden will provide enough vegetables for the dietary needs of the family the year around. Some for canning and some for freezing will insure the family's health with nourishing meals between growing seasons as well as during the summer.

It is important to have a well-balanced garden throughout the season. One easy way to have vegetables from spring until frost is to get enough seed at the beginning of the season and make several plantings several weeks apart. Then the family will not founder on green beans one week and starve for them a month later. Couple this plan with the practice of planting early midseason and late maturing varieties at the same time.

To save work in the garden plant two things in the same row. For instance, radishes and carrots work well together. Take care that the seeding is not too thick or the early radish will shade out the later carrot. The radishes grow quickly marking the row for weeding or loosening up the soil and are eaten and out of the way by the time the carrots are any size.

Vegetables are no better than the seed they come from. The hidden factors most important to the heredity of seeds have a special name — genes. These genes, invisible to the naked eye, can be controlled. Scientists em-

ploied by Eastern States devote their talents to making sure that all Eastern States seeds are well bred. Nor does work stop with checking the heredity of seeds in the Eastern States seed program. The scientists work to develop better strains that give high yields with plenty of vitamins and minerals. There are special varieties that will give the best food values in return for the labor spent in producing them.

Such a food value is the strain of *Golden Cushaw* squash selected by Eastern States scientists. By actual tests Eastern States' strain of *Golden Cushaw* squash is two to four times higher in vitamin A content than any other squash.

Besides having high nutritional value the *Golden Cushaw* squash is a handy size for family meals. In her "Show the Folks" contest letter Miss Eleanor Parker, Uxbridge, Massachusetts, points out that the average size family eats one *Golden Cushaw* at a meal and there are no leftover pieces to dry out and lose flavor before the second meal.

Good by any way of cooking, the *Golden Cushaw* may be treated like summer squash when it is young and steamed, boiled or baked when it is mature. In his "Show the Folks" letter Bobbie Aldrich, Derby Line, Vermont, says "Mummy baked the squash sliced with maple syrup the same way

sweet potatoes are baked. We ate all of it and called for more and more."

Besides being good right out of the garden, *Golden Cushaw* squash will store well throughout the winter and early spring.

Planted anywhere from early May to early July, *Golden Cushaw* squash will grow in 110 days and can be harvested throughout a month. Half an ounce of seed will cover a 50-foot row that normally yields about 150 pounds of winter squash. Allowing 30 pounds of squash per person for a year's supply, a 50-foot row would be about enough for three people.

Good food values also can be obtained from the seed of *Eastern States Blue Hubbard* squash and *Butternut* squash.

In every garden there should be both green and yellow vegetables and some should be eaten every day to meet body needs.

Since it takes 35 or 40 pounds of greens per year to meet food requirements of a recommended vegetable budget for one person, everyone will want more than one green in the garden for the sake of variety. Chinese cabbage and Swiss Chard will vie with young tops of beets and turnips. Turnip top greens are a richer source of iron than spinach.

Blue-Green Siberian kale from the Eastern States list outranks spinach, broccoli and Brussels sprouts in as-

corbic acid (vitamin C), vitamin A, and riboflavin. The plant is so hardy it can be used from the garden well into the winter.

To cook the kale rip out the tough vein up the center of the leaf and wilt it in the water that clings to the leaves. Like spinach, kale can be seasoned with meat drippings, a table fat or white sauce and hard-cooked eggs.

A return to the Eastern States green vegetable program this year is *Mary Washington* asparagus roots. In contrast to asparagus seed that takes three years to grow, the roots will mature in a year and a few shoots may be cut, but it takes about two years to get into full production. To plan how much the family needs consider the size of the family and how well asparagus is liked. Figure that 50 asparagus plants in a 75-foot row will produce about 40 pounds of shoots in the season or right at six pounds per week for six weeks.

Growing shoots of plants are especially rich in vitamin values and asparagus is no exception. It is paradoxical that this luxury vegetable requires so little care. Just keep the weeds out. Plant the roots deeply as soon as the ground can be worked — about apple blossom time.

To get the most food value out of asparagus shoots cook them in the least possible amount of water or steam them. Season with a table fat or drippings. For the queen's taste serve tender tips on toast points and garnish with cream sauce overlaid with hard-cooked eggs and olives.

Another green vegetable is *Eastern States Early One* broccoli. A half-dozen plants in the home garden will keep the family supplied all summer if they are kept cut back to produce greater yields. Serve the heads and tender stems of broccoli buttered or pour hollandaise sauce over them. *Eastern States Early One* broccoli freezes well too.

Grouped with the leafy vegetables and shoots for food values are green peas and green beans. There is a new bush snap bean named *Plentiful* and another called *Long Tendergreen*. For freezing the *Kentucky Wonder* green beans cannot be beat, and *Thomas Laxton* peas have not been surpassed.

A second group of vegetables is comprised of tomatoes and raw salad

greens. Included are lettuce, cabbage, green and red peppers and parsley.

New to the Eastern States list is *Oak Leaf* lettuce, so called because of the shape of the leaf. *Oak Leaf* lettuce is tender and succulent. No trace of bitterness mars the fine flavor and the bright green makes an attractive base for individual salads or can be tucked around the edge of a bowl of potato salad. *Oak Leaf* lettuce makes a crisp green salad by itself or it may be wilted with a hot tart sauce seasoned with bacon fat. *Oak Leaf* lettuce does not curl into deep cups as does *Great Lakes* lettuce, but lies flatter on a plate more like ordinary leaf lettuce.

Important for ascorbic acid (vitamin C) content when served raw is the Eastern States strain of *Italian Sweet* pepper. On a weight-for-weight basis the ripe (red) *Eastern States Italian Sweet* pepper served raw has about three times as much vitamin C as oranges. Moreover, this variety is excellent for freezing.

These peppers make excellent use of savory meat stuffings for baking or can be filled with golden corn kernels. For quick, easy serving, fry shoe-string strips or thin rings of *Eastern States Italian Sweet* pepper in a bit of fat until the pieces are flexible. Overcooking destroys more ascorbic acid (vitamin C).

Eastern States Italian Sweet peppers make colorful finger foods, too, for school lunches. Plan to use raw wedges of the pepper in sandwiches with bread and butter or peanut butter or meat. Cook the peppers with

other vegetables or dice them into salads.

Into a third nutritional group of vegetables go shell beans, beets, cauliflower, celery, corn, eggplant, kohlrabi, onions, parsnips, potatoes, radishes, summer squash and white turnips. Every day some in the diet from the group is necessary.

In this group *Fordhook 242* lima bean is a treat. *Eastern States' French Horticultural* bean was developed from a single plant and is outstanding in its line. *Utah Valencia* onions are sweet enough to use alone, but have enough pungency to add zest to any other dish.

For flavor and food value in corn the home gardener cannot go wrong with any one of four varieties. In the order of maturity the big four are: *Sugar and Gold*, *Early Gold*, *Carmel Cross* and *Golden Cross Bantam*. To have sweet corn on the family table throughout a long season, plant all four of these varieties at once. Then about a month later make another planting of all four varieties. For flavor the *Golden Cross Bantam* is outstanding, but each is the best variety obtainable for flavor in its season.

In a "Show the Folks" contest letter Jimmie Aldrich, Derby Line, Vermont, (brother of Bobbie) vouches for the quality of *Golden Cross Bantam*. Jimmie wrote that "Mom said, 'It is delicious corn.' Daddy said, 'That's the most tasty corn I ever ate.' I would like to know just what the racoons said for they ate the biggest and best ears."



Either cheese sauce or cream sauce tops asparagus on toast points.



FARMING JUST Before 20

FOUR GIRLS and one boy from four states are winners in the "Show the Folks" contest sponsored by Eastern States Farmers' Exchange for gardeners among the younger set.

From scores of entrants one of the girls, Eleanor I. Parker, Uxbridge, Massachusetts, had the distinction of having earned two awards in the contest — one for her letter telling about raising *Eastern States Golden Cushaw* squash and another for an account of her experiences with the *Eastern States Utah Valencia* onion.

Other high ranking youngsters are Lois N. Jones, age 9, Waitsfield, Vermont, for a letter about *Eastern States White Mountain* watermelon; Nancy Hawthorne, Maple Street, Hazardville, Connecticut, concerning her *Maine Yellow Eye* beans from Eastern States; Majorie H. Pelkey, age 14, Chester, Massachusetts, who grew *Eastern States Great Lakes* lettuce; and William H. Tucker, age 11, Pleasant Gap, Pennsylvania, for his report on the production of *Eastern States Golden Cross Bantam* corn.

Six awards of \$25 Victory Bonds were offered last January to writers of the most informative letters telling about their experiences in producing one or more of six new varieties of vegetables. These elite varieties were introduced to Eastern States members after having passed the quality tests of Eastern States plant production specialists.

Each letter was to tell about only one variety but every contestant could write as many letters as he or she desired. (Editor's note: Some letters were disqualified because only one letter was used to tell a little bit about each variety. Too bad.)

Here are some excerpts from the prize-winning letters:

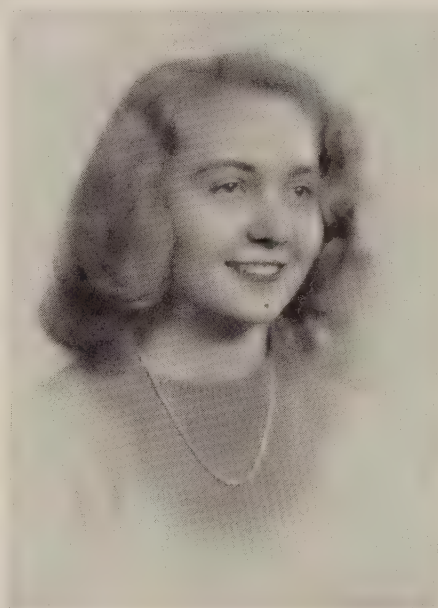
Writing about *Eastern States Utah Valencia* onions, Eleanor Parker is

specific and to the point. She states:

"From 570 feet of *Utah Valencia* onion plants I harvested about six bushels of large, firm, yellow-skinned onions.

"The *Utah Valentias* are a mild onion, thereby making them ideal for boiling and frying as well as for flavoring other foods.

"Though a form of the blight attacked the green onion tops, partially killing them, the onion bulbs continued to grow to a large size which proved the *Utah Valencia* variety is a hardy onion.



Eleanor Parker of Uxbridge, Massachusetts, who earned two awards in the "Show the Folks" contest.

"My family was so impressed with this new variety of onion that we plan to raise only the *Utah Valentias* in years to come."

Of the *Golden Cushaw* squash, Eleanor opines that it is a far superior variety of winter squash than the usual Vermont or Blue Hubbard and should, within a short time, become the leading winter squash in the Northeast.

"The eastern section of this country is gradually becoming infected with dry rot and the squash bugs, with which the usual well-known varieties of winter squashes are unable to cope. However, the *Golden Cushaw* is not affected by this form of rot or by the squash bugs, thereby making this variety easy to grow, when oftentimes it is practically impossible to raise the Vermont or Blue Hubbard squashes.

"While the Vermont and Blue Hubbard squashes have thick skins necessitating considerable waste, the *Golden Cushaws* are usable right up to a very thin skin, making the waste practically nothing.

"As to the color, flavor, size and texture of the *Cushaws*, their meat is a bright orange in color and is smooth in texture — not stringy or watery as some squashes frequently are."

William Tucker's letter shows close observation of his plot and accurate accounting. In his report he says, "This year I planted two rows of *Golden Cross Bantam Yellow Hybrid* corn. The rows were 30 feet long and three feet apart. Other corn near-by may have helped cross-pollinate it. The yield was three bushels of corn and several pecks of smaller ears. This seemed quite good as compared to other corn in our garden. Many of the stalks had two and three ears. I also planted four to five kernels to a hill. I did some thinning out where it was too crowded, but most of it was allowed to grow. We sold at least six dozen ears at 35 cents a dozen. The rest we ate here at home and liked it so well that none was canned, but was put right on the table. I saved about \$10 because it cost about that much at a store."

Youngest of the winners, Lois Jones, had some difficulties, but is delighted to find a watermelon that will stand adverse conditions and ripen in the short growing season of her section of the country. She writes: "As soon as the weather was right, I planted my watermelon seeds.

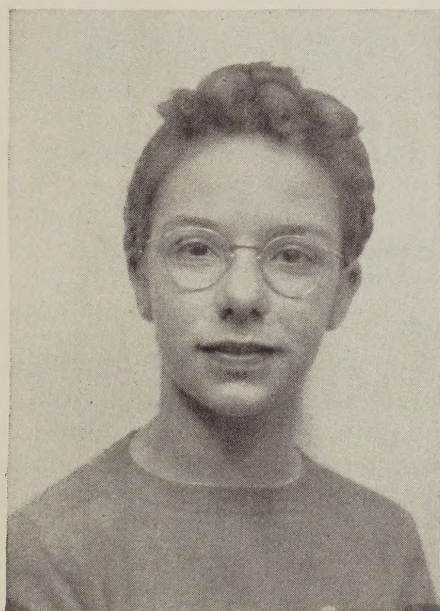


William H. Tucker, 11, Pleasant Gap, Pennsylvania, reported on his production of *Golden Cross Bantam* sweet corn.

"The striped beetles chewed the small leaves, but I dusted with rotenone and this kept the beetles away. The plants were well started when we had a hard hail storm which broke up the vines and tore off the leaves. Nearly all of the plants were killed, but a few grew and set melons. These few melons ripened, but we had enough to show the kind of fruit. As our seasons are short we can't usually raise watermelons. I was glad to find we could raise this kind, as I like watermelons to eat."

Reports Nancy Hawthorne, "I planted one packet of *Maine Yellow Eye* beans in a plot plowed and harrowed by our tractor. They came up in approximately two weeks. When they were up about four inches I mixed *Eastern States Castor Pumice* with the soil around the plants. After that I kept the row hoed and fertilized with 9-16-16.

"Around the first of September the bean plants lost their leaves. I looked in the *COOPERATOR* to find why the leaves had dropped from the plants.



Nancy Hawthorne of Hazardville, Connecticut, told of excellent results with *Eastern States Maine Yellow Eye* beans.

I found that when the leaves fall, the beans are mature.

"I picked all the pods that were ripe. All the pods were not brown so I didn't pick them all. Later I put the beans in flat pans to dry. They were left there for about one month. When



Marjorie Pelkey, Chester, Massachusetts, did a big business in lettuce from *Great Lakes* seed planted in the field.

I planted the seeds, I thought that I would sell the produce, but after keeping them clean from weeds and bugs, I decided to can them instead."

The detailed letter of Marjorie Pelkey suggests that she kept a careful record of her project:

"This past spring I ordered a package of *Eastern States Great Lakes* lettuce seed. In April, as soon as I could get a small piece of ground worked up, I planted the seed. A few days later the seedlings came up. Later I thinned them out, and left the remainder to grow larger for transplanting.

"In May I prepared the place I wished to plant them. The ground was worked up deeply and manured well and *Eastern States* fertilizer added. The soil I chose was quite moist and kept the moisture during most of the summer.

"I transplanted the lettuce seedlings in four rows, six inches apart; the rows were 25 feet long. After transplanting them, I watered each one with a starting solution containing one handful of 5-10-5 fertilizer to one gallon of water.

"By planting them six inches apart, the between ones were used first as leaf lettuce, and which gave the others a chance to make heads.

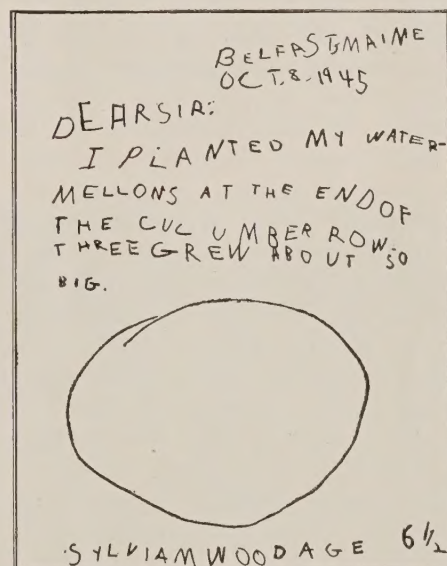
"They grew very fast and soon were forming heads. Every plant made a solid head like small cabbages.

Some were very large — 10 to 12 inches across. The inner leaves were crisp and delicious of flavor and so tender. Even the outer leaves were nice and sweet and free from any bitter taste. It was the best lettuce we ever had. They kept well, and we had lettuce to use until the middle of September.

"I gave away lots of heads, and also sold about 45. Besides, we had all we could use and as the lettuce became too old, I fed it to the hens and chickens. They liked lettuce, too. Everyone said these heads of lettuce were nicer than the ones in the store.

"I didn't have any trouble with insects, so by keeping the weeds out and hoeing up around the plants several times, they were no trouble at all.

"Next year I am planning to have a bigger patch of *Great Lakes* lettuce, and perhaps will get a chance to sell the heads at the local store. They sure were swell plants and looked so nice in the rows I had that I hated to pull one out to eat!"



Here we reproduce Sylvia M. Wood's letter — because it is so unusual. Getting started is the important thing!

☆ A COMPLIMENT . . . I just want to tell you how much I enjoy the *COOPERATOR* and don't care to miss a copy.

Had a wonderful garden this year from *Eastern States* seeds, wouldn't raise a garden without your seeds. — George Edward Lewis, Bryantville, Massachusetts.

One week IN A FARMER'S DIARY

Sunday — We set the calendar back about 40 years and joined some friends and neighbors on an old-fashioned sleigh ride. Yes, we had the big old flat-bedded bobsled, and straw and warm bricks wrapped in sacking and plenty of jingling bells on the harness.

One of the farmers hereabouts has a four-horse hitch of handsome strawberry roan Belgians and as long as snow is on the ground he's kept busy taking parties for sleigh rides.

There were 20 of us and we included what is called a "progressive kitchen supper" scheme in our outing. First we all met at the bobsled owner's place and packed ourselves in with the bricks and straw. We rode a mile or so to the home of our first hosts and there we had cream of pea soup, hot as could be. You don't take off your boots or coats in a kitchen party for sleigh-riders — just stand around casually with a cup of soup in your hands.

Another short ride and we feasted on country sausages in big home-made buns, which, by the way, put some Eastern States flour to very fine use. Here also we had servings of squash and baked onions on paper plates . . . and milk in paper cups.

Lest this account become too heartily devoted to the good food — which certainly grew in importance with every minute we were out there in the crisp winter air — let me point out that such an occasion has other charms.

For one thing, you see folks relaxed and merry . . . folks you see from time-to-time too busy to more than say "How'd-do." And you discover that the fellow who never talked to you about much else than how he worried over the way the country was run could sing "Jingle Bells" like nobody's business. And people who seemed so shy and stiff at public socials that you couldn't imagine their being anything but awkward hosts at home, were exactly the oppo-

site across their own doorsteps where the very walls seemed to reflect the warmest, friendliest hospitality.

Deep inside you your heart sort of warms up to all these pleasant revelations . . . and the clump-clump of the horses' feet on the snowy road, the squeak and hiss of the runners, the jing-jing of the bells, the rich blackness of the sky and the bright beauty of the stars . . . all do your soul some good.

Well, we halted further on for a buffet of salads and pickles and snacks . . . and again for hot chocolate or coffee and hot scones with raspberry jam.

What will country folks do to equal this in the days of jet propulsion?

Monday — Either my grandparents knew some tricks we have lost or they endured some vexations with so little fuss that this problem made no impression on me in my boyhood. Anyway I can't recall seeing Grandfather's bacon get as moldy as ours does. Possibly his methods made the "cure" more thorough than custom processors give us today . . . or maybe he knew how to prevent molding. I'd like to know how!

Tuesday — George, our cackleberry squire, whose pessimism is always verbal while his optimism shines through all his actions, is busy trying to adjust his plant for maintaining what he calls his "normal" egg output with 15 percent fewer hens than he used three or four years ago. He and his son, Bob, are "smoking out" their less productive families by progeny test records. Their idea is to operate with quicker turnover of their laying pens while meat prices are relatively good. This speeds up the sorting out of the better families and forces the poorer stock to give way sooner to replacements bred from the better birds. It involves lots of records and plenty of desk work which Bob likes and does very well. George figures they are sacrificing some now in market egg income by marketing birds long before they taper off in production, but he figures they will more than make it up later when the going is rougher and only the best flocks will maintain a profitable pace.

Wednesday — Talking with an old-timer in Guernsey breeding brought

out some ideas to ponder. He said it was his observation that commercial milk making rarely gave a farmer anything more than a hard-earned living, but that persistence in breeding up a quality purebred herd, even though the beginning was humble and the progress hobbled by very little means to buy fine bloodlines, there would be a time or two in most decades when even the farmer-breeder banks some money from breeding stock sales. And, he says, he can't think of a better way for a farmer to try to build up an estate than to plug steadily at improvement of his herd. He tells me that 35 years ago his 20 stanchions had a line-up of \$50 cows . . . and he believes today he could empty those same stanchions at an average price of \$500 a cow.

Thursday — Our freezer has made our farm garden a year-around project. Molly is busy planning our variety selections and planting schedule to take advantage of our experience in both appetite and convenience. Although the vegetables for any single meal may seem too trivial to deserve concern, when you think of the year-long possibilities of each row of vegetables, our garden becomes a major factor in giving us better living within the modest limits of our income.

Friday — Most of the zeal to produce one's own meat has gone from the community with the end of food rationing. But, surprisingly, there are some folks who still have it. They tell us they are not so much concerned whether their pig or steer or flock of fryers save them money now, but they like the satisfaction they get from having well-stocked larders and the feeling of accomplishment at having produced a quality product for themselves. But as one expressed it: "We live like kings now without the pain of passing cash over a counter to do it."

Saturday — Now is the time when we reap our harvest of woe from little details which should have been taken care of in balmy weather. Today I started a list of aggravations about water connections that weren't properly winterized, gates that need redesigning to contend with snow, soggy spots in lanes where grading and gravelling would keep us from bad words during the mud season.



LEFT: Much deserved popularity has come to *Great Lakes* lettuce because of its high quality and outstanding ability to head in midsummer.

BELOW: Most popular variety of the bright, smooth white parsnips is the *Hollow Crown* pictured here. Roots are six to eight inches long.

Do Your Vegetables Have That Commanding Quality?

Commanding quality in your vegetable crops means high nutritive value whether you eat them or sell them. This *commanding quality* thus goes far beyond appearance in the garden, on your table or in the package.

» Your soils are the key to *commanding quality* in the market place or at home. They are the sources of those minerals which make vegetables health foods.

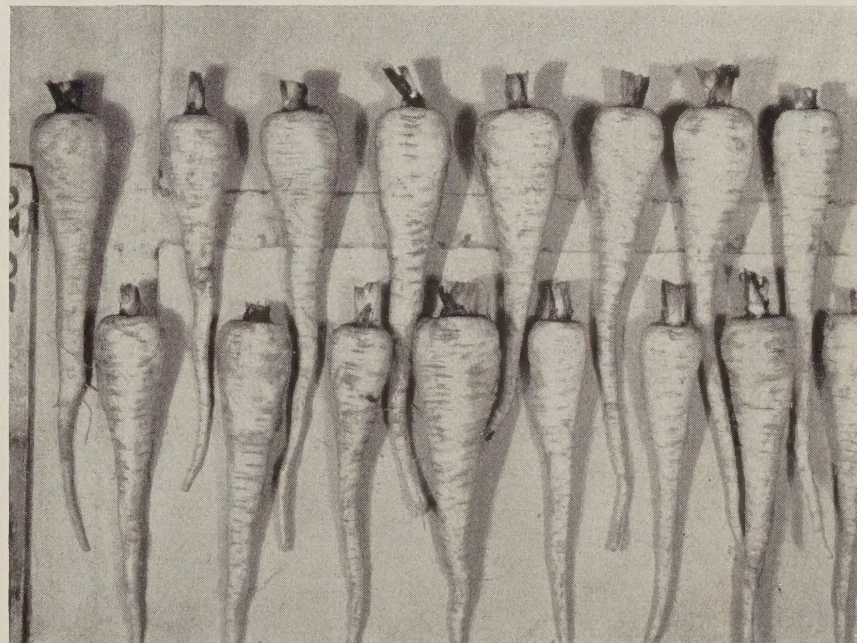
» Soils which produce vegetables of *commanding quality* are *fitted* for the job. They are provided with organic matter from strong perennial sods, from annual green manure sods, from manure. They are limed regularly to provide calcium (and magnesium), and to control acidity. They are supplied with these fertilizer nutrients: *Nitrogen, Phosphoric Acid, Potash, and Borax* (when needed). It is necessary to get this basic foundation fertility worked deeply into the soil *before the crop is planted*.

» When you choose fertilizer for your next spring's vegetable crops, select from these grades: *10-10-10* for leafy crops; *8-24-8* or *5-15-5** for seed and fruit

crops; and *8-16-16* or *5-10-10* for root crops.

» Well-fitted soils plus Eastern States vegetable seeds plus your choice of these fertilizers plus your good management will give you vegetables for home use or sale which have that *commanding quality*.

» **5-15-5* is available only from the York, Pennsylvania, plant.



COOPERATIVE EASTERN STATES FERTILIZER SERVICE



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USE

Eastern States Materials FOR CLEAN CROPS IN 1946

CONTROLLING insects and diseases which attack vegetable and fruit crops is a job to which Eastern States Farmers' Exchange is devoting much time and energy. That job is not simple. It starts with a spray or dust material which has been proved effective and made to be dependably good.

Eastern States is now getting its feet firmly planted in the spray and dust blending and packaging field. That project has had first attention this past year at the new Eastern States Farm Supply plant at Acton, Massachusetts.

• This bag filler at Acton plant helps speed the job and step up production. Check weights on platform scales are frequently taken.

For 1946 Eastern States will have a complete selection of spray and dust materials, many of them coming from the Acton plant. It is definite that Eastern States will be *strongly in the DDT picture* for 1946.

Convenience and speed of delivery will be stressed and backed up with base supplies at three fertilizer plants and at the 60-odd Eastern States warehouses.

Your Eastern States program for 1946 has these added advantages:

- (1) The program of materials is complete for all classes of producers: vegetable growers, orchardists, potato men and home gardeners.
- (2) Eastern States, through its trained entomologist, works closely with state and federal agencies who carry on research work to improve insect and disease control — and passes on to you, in usable form, benefits from their studies and findings. This entomologist also works closely with growers.
- (3) Eastern States is able to keep a close finger on quality control through cooperation of your own fine laboratory and trained chemists at Buffalo.

